

Chemist & Druggist

ANNUAL SPECIAL ISSUE

JUNE 29, 1935

No. 2890

VOL. CXXII

J. F. Macfarlan
and Company

*for Purity, Reliability and
Stability in Pharmaceutical
Products*

London and Edinburgh



H. W. Graesser-Thomas Ltd

Monument 3011-3111

49 Leadenhall Street, London, E.C.3. 'Unomee, Fen, London.'



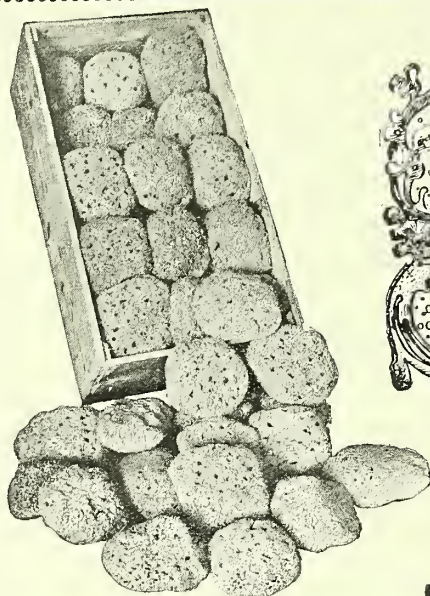
*This is Aspirin
'Fre Flo'*

*made by
W. J. Bush & Co. Ltd.
London*

PRODUCT & PRICES	DESCRIPTION	INDICATIONS	SUGGESTED DOSAGE
ADEXOLIN Liquid ½-oz. phials - - 2/6 2-oz. bottles - - 7/6 4-oz. bottles - - 12/6 8-oz. bottles - - 22/6	Standardised, virtually tasteless and inodorous concentrate of Vitamins A and D containing 12,000 and 2,000 international units respectively per cc. (20 times medicinal cod-liver oil potency).	Epithelial infections. Antenatal routine, to prevent puerperal pyrexia and promote foetal development. Prophylaxis of infantile infections and deficiency diseases. Promotion of dentition and skeletal growth. Treatment of measles and other exanthemata.	Prophylaxis, from 10-20 drops daily (2 drops in every bottle feed). Treatment: Up to 20 drops every waking hour. ½ m. dropper supplied.
ADEXOLIN Capsules Boxes of 25 - - 2/9 Boxes of 100 - - 8/6 Tins of 500 - - 30/6 Tins of 1000 - - 56/-	6,000 international units of A and 1,000 of D in each 3 m. capsule (equivalent in potency and balance to 10 cc. of medicinal cod-liver oil).		1 capsule daily up to 1 every waking hour (1 daily for the last 100 days of pregnancy).
OSTOMALT ½-lb. jars - - 1/9 1-lb. jars - - 3/- 7-lb. jars - - 17/-	Four-vitamin malt tonic. 3 times Ext. Malt Cod-Liver Oil B.P. in Vitamins A and D, rich in B complex and containing concentrated orange juice (for Vitamin C and appetising flavour).	General tonic in debility and convalescence. Prevention and treatment of latent polyvitamin deficiencies. Prophylaxis of "winter" infections.	½-1 teaspoonful up to thrice daily. <i>Teaspoonfuls</i> —not <i>tablespoonfuls</i> .
SYRUP MINADEX 6-oz. bottles - - 2/6 80-oz. bottles - - 22/6	Therapeutically active principles of Syr. Ferri Phos. Co. (iron, calcium, phosphorus, sodium and potassium) and of cod-liver oil (Vitamins A and D) combined and reinforced with copper & manganese. Appetising flavour.	Reconstructive tonic specially suitable for convalescent and debilitated children. Used for preventing relapse after infections.	½-2 teaspoonfuls up to thrice daily, after meals.
FAREX Cereal Food 1-lb. drums - - 2/-	Proteins (15.0%), carbohydrate (72.0%), fat (2.5%), reinforced with minerals and Vitamins A, B complex and D. Calorific value 110 per oz.	Complete food for convalescents. Dietetic treatment of gastric disorders (including gastric ulcer). Weaning.	2-3 heaped dessertspoonfuls with hot or cold milk or soup, broth, beef tea, meat extract, etc. Or as instructed by the physician. Needs no cooking or special preparation.
OSTOCALCIUM Tablets (Calcium Sodium lactate with Ostelin vitamin D) Tins of 50 - - 2/9 Tins of 100 - - 4/6 Tins of 500 - - 13/9	The first calcium and Vitamin D tablets: 7½ grs. calcium sodium lactate and 500 international units of Ostelin Vitamin D.	All conditions associated with calcium deficiency. Calcium therapy during pregnancy and lactation. Menorrhagia.	1-12 tablets daily (6 a day is the usual maximum). Tablets may easily be halved, quartered, or crushed and dissolved taken in water.
GLUCOSE-D 1-lb. tins - - 1/9 7-lb. tins - - 10/6	Powdered medicinal glucose (98%) reinforced with Ostelin Vitamin D (250 international units per oz.) and calcium glycerophosphate.	Ketosis. Debility and overstrain. Cardiac disease. Febrile illnesses. Anorexia. Travel sickness. The "D" compensates for the vitamin deficiency in low fat diets.	1-6 dessertspoonfuls or more daily. Orally or by the bowel. Not for injection.
FERROUS SULPHATE Tablets G.L. Bottles of 100 - - 2/6 Tins of 500 - - 7/6	In each 3 gr. tablet:—1 gr. iron (ferrous) and 0.01 gr. copper and manganese respectively. Each tablet therapeutically equivalent to 15 grs. Blaud's Pill B.P.	All microcytic and iron deficiency anæmias.	2-9 tablets daily, after meals.
ERBOLIN Capsules Bottles of 25 - - 3/4 Bottles of 100 - - 10/- Bottles of 500 - - 33/9 Bottles of 1000 - - 10/-	Stable, physiologically standardised defatted ergot powder. All the active principles retained. The equivalent of 0.4 mgm. (1/150th gr.) of the total alkaloids of ergot, calculated as ergotoxine, in each capsule.	Routine use in obstetric practice. Also in menorrhagia and menopausal hæmorrhage.	1 capsule thrice daily, preferably followed by a hot drink.

THE SPONGE HOUSE

CONTRACTORS TO H.M. GOVERNMENT



LARGEST SPONGE WAREHOUSES IN THE WORLD

With the largest stocks of all Sponges imported direct by us from the Fisheries at lowest prices. Buyers are invited to call and inspect our large and varied stocks, and they will convince themselves that they are dealing in the "CHEAPEST MARKET."

IMPORTANT NEW DEVELOPMENT

SPONGES SENT TO ANY PART OF THE WORLD. PARCELS POST FREE

The contents of the above cases will be press-packed and sent post free to Colonial and Foreign buyers within the radius of parcels post free. All that is necessary is that the sponges be placed for a short time on arrival under damp cloths, when they will assume their original size and shape. We are enabled, by this method, to dispatch a large quantity of sponges without incurring expense of freight to buyers.

UNBLEACHED MEDITERRANEAN SPONGES in Original Cases

HONEYCOMB
Extra Choice.
Finest Texture & Shape.
The Pick of all the Fisheries.

Pieces in Case.	Average Price per Piece.
300 Toilet at	9d.
250 " "	1/-
200 " "	1/6
160 " "	2/-
140 " "	2/6
120 " "	3/-
100 " "	3/6
90 Medium Bath	4/6
80 " "	5/6
72 " "	6/6
60 " "	7/6
45 Large	8/6
30 " "	10/6
24 " "	12/6

HONEYCOMB

Toilet & Bath.

Good and Quality.

Pieces in Case.	Average Price per Piece.
at	9d.
180 " "	1/-
170 " "	1/6
160 " "	1/9
150 " "	2/-
140 " "	2/6
120 " "	3/-
110 " "	3/6
90 " "	4/-
80 " "	4/6
75 " "	5/-
70 " "	5/6
65 " "	6/6
60 " "	6/6

HONEYCOMB

3rd Shape.

Toilet and Bath.

Largest Sponges obtainable at the Prices.

Pieces in Case.	Average Price per Piece.
at	6d.
250 " "	6d.
200 " "	8d.
180 " "	9d.
160 " "	1/-
140 " "	1/3
120 " "	1/6
100 " "	1/9
90 " "	2/-
80 " "	2/6
60 " "	3/-
45 " "	4/6
30 " "	5/-

FINE TURKEY CUPS

1st Quality.

PICKED SHAPES.

Pieces in Case.	Average Price per Piece.
300 at	1/-
250 " "	1/3
200 " "	1/6
175 " "	1/9
150 " "	2/-
140 " "	2/6
100 " "	3/-
80 " "	3/6
70 " "	4/-
60 " "	4/6
50 " "	5/-
40 " "	6/-
30 " "	6/6
20 " "	7/6

Terms 2½% Cash with Order

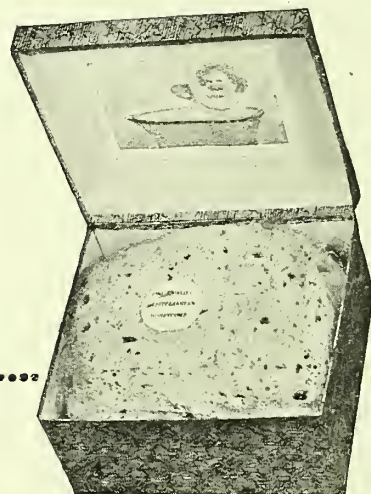
SPONGES ALWAYS MAKE SUITABLE GIFTS ALL THE YEAR ROUND

We have had an increasing demand for Presentation Sponges this year. There is no doubt that if people could only be made "Sponge minded," by seeing these boxes, every one would be glad of such a suitable addition to the limited selection of Useful Gifts. Why not set up a display of these Fine Sponges for the Season. We shall be pleased to submit a selection On Approval.

Show Cards with all orders

No. XX.	Choice quality, Selected Shapes, Honeycomb Sponge, wrapped and in Fancy Box	2/6 each
No. X1	" " " " " "	"	"	"	5/-
No. X2	" " " " " "	"	"	"	7/6
No. X3	" " " " " "	"	"	"	10/-
No. X4	" " " " " "	"	"	"	12/6
No. X5	" " " " " "	"	"	"	15/-
No. X6	" " " " " "	"	"	"	20/-
No. X7	" " " " " "	"	"	"	25/-
No. X8	" " " " " "	"	"	"	30/-

Subject to 33½% discount.



CRESSWELL BROTHERS

Branch of International Sponge Importers, Ltd.

Sponge Importers, Exporters and Merchants, and Chamois Leather Dressers,
18 & 19 RED LION SQUARE, LONDON, W.C.1

With the Largest Stocks of all Sponges Imported direct by us from the Fisheries at Lowest Prices. Write for Prices. We Invite Competition.

"So Refreshing!"
IS THE THEME
OF THE SCHEME TO SELL MORE

COTY
EAU-DE-COLOGNE

(CORDON ROUGE)

this summer —

"SO REFRESHING!" A slogan so simple, so obvious, and yet like most obvious things—so elusive! How did we arrive at it? Why, in the way that all the best advertising slogans are conceived—in the most natural and unpremeditated manner imaginable, thus A "sticky" day. Just returned hot and bothered to my office. Desk covered with new season's advertising suggestions. IDEAS WANTED!! Phew! and I darted for the Eau de Cologne flacon on my desk. A few dabs on the forehead, and "So Refreshing!" I exclaimed "So Refreshing!" still mused my Advertising Manager with meaning emphasis . . . "So Refreshing" WHY, WE'VE GOT IT!



You, too, are going to find it "so refreshing" to make extra profit simply by backing a really good line! The new-theme advertising is starting top speed. (The new Eau de Cologne Toilet Soap at 1/- and 1/6 a tablet is also a winner).

C. C. Valli

C. C. Valli, Managing Director,
Coty (England) Ltd.

C.F.H.28



Send at once for particulars of the Special Eau de Cologne PARCELS including Free attractive display stand as illustrated. Write to Coty (England) Ltd., 3, Stratford Place, London, W.1.

Houbigant

continue
their powerful national
advertising campaign

Full pages in :

VOGUE, SKETCH, TATLER, BRITANNIA & EVE, EVERYWOMAN'S NASH'S, GOOD HOUSEKEEPING, WOMAN & HOME WOMAN & BEAUTY, PICTUREGOER, FILM WEEKLY supporting still further the atmosphere of prestige which surrounds the renowned French brand and reminding your customers that :

1° HOUBIGANT, originators of "QUELQUES FLEURS" maintain absolutely intact their reputation for quality which has made them world-famous.

2° All HOUBIGANT Preparations are manufactured exclusively in FRANCE, at NEUILLY-sur-SEINE, near PARIS, under the personal supervision of their creators.

HOUBIGANT Preparations are obtainable from your usual Wholesaler, or direct from

PARFUMERIE HOUBIGANT
19, RUE DU FAUBOURG SAINT-HONORÉ
PARIS VIII*

THE PERFUMERY MARKETING Co.
Prince's House
190, PICCADILLY
LONDON, W. 1

will be pleased to reply to any enquiry.



INDEX TO ADVERTISERS

"Academic" Depôt (Surgical Hosiery).....	xxxii	Brown, Geo., Photo Co., Ltd. (D. & P. Service, &c.).....	lxxvi & lxxvii	Fairchild Bros. & Foster ("Panopepton," &c.).....	Leader Page
Acton Pill & Tablet Co., Ltd. (Back, Kidney and Bladder Pills, &c.).....	58	Buckley-Bowker Tablet Co., Ltd. (Tablets, &c.).....	xxxix	Fairy Dyes, Ltd. (Dyes).....	xlii
Allen, Stafford, & Sons, Ltd. (Extracts, Tinctures, &c.).....	45	Burall Bros. (D. & P. Service).....	lxxviii	Fassett & Johnson, Ltd. (Argyrol)...	68
Andersen & Bruuns Fabriker, Ltd. (Aluminium Bottle Caps).....	lxxxi	Burge, Warren & Ridgley, Ltd. (Surgical Rubber Goods).....	lxxx	Fecher, M. J., Ltd. (Poison Bottles)...	lviii
Anglo-French Drug Co., Ltd. (Hypotensyl, &c.).....	76	Burgoyne, Burbidges & Co., Ltd. (Salines).....	48	Foot, H. (Contraceptives).....	xlii
Annis Medical Agency (Businesses for Sale).....	Col. Supp.	Burrough, James, Ltd. (S.V.R. for Tinctures, &c.).....	70	Ford, Shapland & Co., Ltd. ("Solvo" Toilet Paper).....	xxxii
Anzora Perfumery Co., Ltd. (Hair Cream, &c.).....	106	Burroughs Wellcome & Co. ('Tabloid' Photo Chemicals).....	121	Fox, Samuel, & Co., Ltd. (Stainless Steels).....	xxxviii
Armour & Co., Ltd. (Junket).....	10	Butler & Crispe (Sundries).....	xxv	Foyles Libraries.....	106
Armstrong Cork Co., Ltd. (Corks).....	lix	Calder's Yeast Co., Ltd. (Yeast Tablets).....	90	Freeman, J., & Co., Ltd. (Tooth-brushes).....	29
Arnfield, J. C., & Sons, Ltd. (Raspberry Vinegar, &c.).....	111 & iv	Caldicot Tin Stamping Works, Ltd. (Decorated Tins).....	Leader Page	Freudentheil, Smith & Co. (C.L.O.)...	86
Aspro, Ltd. (Aspro).....	77	Callard & Co. (Diabetic Foods).....	64	Fromm, H. (Morfi Rubber Products, &c.).....	lxxxiv
Association of Manfg. Chemists, Ltd. (Auto-Maid Co. (Electric Heating Pads).....	106	Calvert, F. C., & Co., Ltd. (Tooth Powder).....	38	Gardner, W., & Sons (Glos.), Ltd. (Machinery).....	ix & lxi
Automatic Weighing and Packing Machine Co.	lxxx	Carnegie Bros., Ltd. (Chemicals).....	vii	Garfield Tea Co.	56
Ava, Ltd. (Soapless Shampoo).....	14	Carter Bros. (Neoklenz Nature Cure, &c.).....	56	Gelty Distributing Co., Ltd. (W-5 Brand Tablets).....	lxxi
Ayrton-Graham, Ltd. (Shopfittings)...	lxxxii	Cartwright, W. B., Ltd. (Moorland Tablets).....	35	General Surgical Co., Ltd. (Hypodermic Syringes, &c.).....	xxxii
Ayrton, Saunders & Co., Ltd. (Wholesale Druggists).....	50 & 51	Castle, Huskisson, Ltd. (Tablets, &c.).....	xxx	George, Ernest J., & Co. (Valuer, &c.).....	Col. Supp.
Bailey, R., & Son, Ltd. (Surgical Dressings).....	xxiv	Cavendish Chemical Co. (New York), Ltd. (Atocin Tablets, &c.).....	66	Gidlow, A., & Co., Ltd. (Shaving Creams, &c.).....	38
Baillière, Tindall & Cox (Books).....	104	Cephus, Ltd. (Headache Remedy)...	xl	Glaxo Laboratories (Adexolin, &c.).....	1
Baird, J., & Sons (Sunproof Goggles)...	lxvi	Cesar Laboratories, Ltd. (Liquid Dentifrice).....	lxix	Graesser-Thomas, H. W., Ltd. (Aspirin Fre-Flo).....	Cover
Bakelite, Ltd. (Bakelite Moulded Containers).....	xxvi	Christy, T., & Co., Ltd. (Page-Barker Lotion, Estivin).....	26 & lxxviii	Greiff, R. W., & Co., Ltd. (Quinine, &c.).....	8 & 9
Baker Metal Stopper Co., Ltd. (Screw Caps, &c.).....	102	Clark, Cicero S. (Cachets).....	lxxx	Grey, Adelaide, Ltd. (Toilet Preparations).....	38
Barker, R., & Son, Ltd. (Infants' Preservative).....	86	Clark, S. F. (Valuer, &c.).....	Col. Supp.	Groat & Co., Ltd. (Norvic Crêpe Bandages).....	xliii
Barker, R. W., & Co. (Patent Agents).....	Leader Page	Clay & Abraham, Ltd. (Ephedrol)...	75	Guest, T., & Co., Ltd. ('Sure Shield' Summer Lines).....	82
Barnett, Jack L., Ltd. (Bottles).....	lxxx	Clements Newling & Co., Ltd. (Display Stands).....	83	Guyot-Guenin & Son (Tamar Indien Grillon, &c.).....	lxxii
Batley & Co. (Maté Tea).....	56	Cook, Geo (Shopfittings).....	lxxx	Hackett, S. E. (Film Overstocks).....	Col. Supp.
Battle, J. C. M. (Vermin Killer).....	lxxiv	Cooper Laboratory, Ltd. (Tablets & Pills).....	49	Hall Forster & Co., Ltd. (Vapourisers).....	xlii
Bayer Products, Ltd. ('Carboserin' Tablets).....	xx	Cooper, McDougall & Robertson, Ltd. (Dog Remedies).....	105	Haller Laboratories, Ltd. (Danysz Virus).....	lxxv
Beatson, Clark & Co., Ltd. (Shop Rounds).....	lvii	Cooper, Son & Co., Ltd. (Cachets).....	lxxviii	Hampden Residential Club.....	Col. Supp.
Beechams Pills, Ltd. (Beecham Products).....	96	Corfield, Ltd. (Aluminium Containers)...	100	Hampson, Fredk. (Bottles).....	1
Bell, John, Hills & Lucas, Ltd. (Colloid Sunburn Lotion).....	Leader Page	Cosser, A. C., & Son (Thermometers), Ltd. (Clinical Thermometers).....	xlv	Hancock, James Lyne, Ltd. (Air Cushions, &c.).....	xxxii
Benckiser, J. A. (Tartaric Acid, &c.).....	viii	Coty (England), Ltd. (Eau de Cologne, &c.).....	3	Hanson, W., & Sons, Ltd. (Bottles)...	lviii
Benger's Food, Ltd. (Foods).....	80	Cox, Arthur H., & Co., Ltd. (Pills and Tablets).....	Cover	Harkness, Beaumont & Co., Ltd. (Malt Products, &c.).....	60
Benigne & Co., Ltd. (Agocholine, &c.)...	82	Coxeter & Son, Ltd. (Nitrous Oxide).....	xix	Harley, T., Ltd. (Rodine).....	lxxiv
Berdoe & Fish, Ltd. (Valuers, &c.).....	Col. Supp.	Cresswell Brothers (Sponges).....	2	Harris, Hart & Co., Ltd. (Glauber Salts, &c.).....	xxii
Berman, A., & Sons, Ltd. ("Burmex").....	xliv	Crookes Laboratories (Collosol Zinc Cream).....	69	Harrison, A., & Sons, Ltd. (Printing)...	102
Berton, Arthur, Ltd. (Surgical Dressings).....	xxxvi	Cuxson, Gerrard & Co., Ltd. (Carnation Corn Caps, &c.).....	li	Hart, Michael, & Co., Ltd. (KLX Brand Tablets).....	lxix
Betts & Co., Ltd. (Collapsible Tubes)...	lxxii	Daniel, R., & Son, Ltd. (Dania Brand Sulphur Candles).....	60	Harvey & Co. (Dublin), Ltd. (Veterinary).....	lxxv
Bishop, Alfred, Ltd. (Granular Effervescent Preparations).....	108 & 109	Davenport, J. T., Ltd. (Chlorodyne)...	75	Harwoods (Chemists), Ltd. (Efaigen)...	66
Blackie, R. (Hartz Pure Health Salt)...	99	Dee Oil Co., Ltd. (Petroleum Jelly)...	84	Haywood, J. H., Ltd. (Surgical Appliances).....	xlvi
Blackwell, Hayes & Co., Ltd. (Galenicals, &c.).....	xviii	Deiches (Cash Registers).....	83	H.B.T. Medical & Toilet Products...	88
Bleasdale, Ltd. (Sapo Mollis Virid B.P.).....	60	Demuth, R., Laboratories (Frozoneclone, &c.).....	26 & 27	Heward, R. H., Co. (Surgical Appliances).....	94
Blundell & Co. (Liverpool), Ltd. ("Granville" Films).....	lxxxix	Denver Chem. Mfg. Co. (Antiphlogistine).....	76	Hill, Thos., Engineering Co. (Hull), Ltd. (Bottle Washing Machinery)...	lxii, lxiv
Blythe, W., & Co., Ltd. (Chemicals)...	xvi	Distillers Co., Ltd. (D.C.L. Yeast Tablets).....	87	Hobson, J., & Sons, Ltd. ('Vintegg' Egg Wine).....	lxxx
Blyton, Astley & Co., Ltd. (Lozenges, &c.).....	lxxviii	Dixor, Ltd. (Toilet Preparations).....	16	Hobson, Trimble & Co., Ltd. (Feet Plasters, &c.).....	xliii
Bob Martin, Ltd. (Dog Remedies).....	lxxiii	Dols Volatilis Flannel, Ltd.	58	Hopkin & Williams, Ltd. (Chemicals)...	vi
Bourjois, Ltd. (Evening in Paris Series).....	37	Drake & Dahm (Translators), Ltd.	lxxx	Houbigant Perfumery.....	4
Box, W. H. (Box's Pills).....	89	Drug Houses of Australia Export, Ltd. (Buying and Shipping Agents)...	viii	Hough, Hoseason & Co., Ltd. (Nalga Antiseptic, &c.).....	110
Bradford Technical College.....	lxxix	Dudley & Co., Ltd. (Display Fittings).....	Leader Page	Howard, Lloyd & Co., Ltd. (Pills, Tablets, &c.).....	xxx
Brady & Martin, Ltd. (Galenicals, &c.).....	xii	Duncan, Floekhart & Co. (Drugs and Chemicals).....	li & iii	Howarths (Cockroach Exterminator)...	lxix
Brierley, John (Valuer, &c.).....	Col. Supp.	Duoform, Ltd. (Duo Formula).....	lxix	I.D.L. Industrials, Ltd. ("Septonal")...	lxxviii
British Cod Liver Oil Producers (Hull), Ltd.	46 & 47	Dyanese, Ltd. (Curtain Dyes, &c.).....	44	Iglodine Co., Ltd. (Iglodine).....	78
British Drug Houses, Ltd., The (Peptics).....	122	Eade, Geo., Ltd. (Rheumatic Pills, &c.).....	58	Iford, Ltd. (Selochrome Film, &c.)...	103
British Felsol Co., Ltd. (Asthma Remedy).....	Leader Page	Edwards Harlene, Ltd. (Hair Toilet Preparations).....	25	Ingram, J. G., & Son, Ltd. ("Omega" Soothers).....	xliii
British Optical Institute, Ltd.	lxvi	Elboz, L., & Son (Metal Smallwares)...	lxvii	Iniecta (London), Ltd. (Surgical Syringes, &c.).....	xxxv
British Xylonite Co., Ltd. (Halax Tooth Brushes).....	30	Ellis, J. E., Ltd. (Daisyfax).....	101	International Bottle Co., Ltd. (Toilet Bottles).....	lii
Brook, Parker & Co., Ltd. (Drugs, Chemicals, &c.).....	81	Eueryl, Ltd. (Dentifrices).....	32	Jacquessil Fabrics, Ltd. (Dawn Face Cloths).....	52
Brooks & Warburton, Ltd. (Inner-Clean).....	63	Evans, Adlard & Co., Ltd. (Filter Papers).....	lviii		
		Evans, Gadd & Co., Ltd. (Drugs).....	xiv		
		Evans Sons Lescher & Webb, Ltd. (Carbonate of Bismuth).....	13		
		Ex-Lax, Ltd. (Laxative Chocolate)...	83		

[Continued overleaf.]

INDEX—cont.

- Jeffreys, Miller & Co., Ltd. (Malt Extract and Combinations) ... 112 & 113
 Johnson & Johnson (Gt. Britain), Ltd. (Drybak Plaster) ... xlv
 Jones & Co. (Methylators), Ltd. (Methylated Spirit) ... 83
 Josephs, Philip, & Sons, Ltd. (Shop-fittings) ... lxxxiii & Col. Supp.
 Kay Bros., Ltd. (Flycatchers) ... lxxviii
 Kembell, Bishop & Co., Ltd. (Chemicals) ... xlii
 Kemsales, Ltd. (Besorbon) ... 78
 Kent, G. B. & Sons, Ltd. (Massage Shaving Brush, &c.) ... 31
 King, G., & Co., Ltd. (Patent Foods) ... xlix
 L. B. W., Ltd. (Lemon Barley Water) ... 114
 Lamb & Watt, Ltd. ("Sunray" Tonic Blood Wine) ... 88
 Lambo E.N.G.C.F. (Flavour Caps) ... 54
 Launder, L. T. (Filling Machine) ... lxi
 Lax & Shaw, Ltd. (Bottles) ... lvi
 Leigh & Sons (Carboy Hampers) ... lxi
 Leipzig Fair ... 54
 Lennon, Ltd. (South African Agencies) ... xiv
 Levermore, A., & Co., Ltd. (Precipitated Chalk) ... vi
 Lilia Soluble Sanitary Towel Leader Page
 Lilly, Eli, & Co., Ltd. (Pharmaceutical Specialities, &c.) ... 33
 Lincoln and Midland Counties Drug Co., Ltd. (Clarke's Blood Mixture) ... 92
 Lipvac Flasks, Ltd. (Vacuum Flasks) ... lxxxix
 Liverpool School of Pharmacy ... lxxxix
 Lockett, John, & Co. (Hospital Earthenware, &c.) ... xxxiv
 Lofthouse & Saltmer, Ltd. (Halibut Liver Oil) ... 86
 London & Provincial Factors, Ltd. (Wanie Blades) ... 38
 London Capsule Co. ("Adaptocaps") ... xlviii
 London College of Pharmacy ... lxxxix
 Low, Son & Haydon, Ltd. (Toilet Preps.) ... lxxx
 Macandrews & Forbes, Ltd. (Apollo Liqueur) ... vi
 Macfarlan, J., & Co. (Pharmaceutical Products) ... Cover
 McGlashan, D., Ltd. (Aldine) ... lxxxviii
 Mandall & Co., Ltd. (Licorine) ... 63
 Marie Antoinette Co., Ltd. (Morgan's Pomade) ... lxxii
 Martin, Bob, Ltd. (Dog Shampoos) ... lxxxiii
 Martindale, W. ("Sterules") ... 68
 Mather, William, Ltd. (Crocus Corn Comfort, &c.) ... xxxviii
 Matthews & Wilson (1931), Ltd. (Pills, &c.) ... xxxi
 Matthews, D., & Son (Shopfittings) ... lxi
 Matthews, S., & Co., Ltd. (Curicones, &c.) ... lxxii
 Maund, F., & Berg, E., Ltd. (Showcases) ... lxxx & Col. Supp.
 Maw, S., Son & Sons, Ltd. (Sundries) ... 11
 Mawdsley, D., & Co. (Proprietaries, &c.) ... 67
 Mawson Filter Co. (Mawson Filters) ... lxxxviii
 Maxwell, Plaistowe & Co., Ltd. (Sandalwood Oil) ... iv
 Medipac Products, Ltd. (Travel Sickness Remedy) ... 55
 Meggeson & Co., Ltd. (Summer Drinks, &c.) ... i
 Melrose-Drover, Ltd. (British Wines) ... 88
 Methyating Co., Ltd. (Methylated Spirit) ... 107
 Middlesex Laboratory of Glandular Research, Ltd. ("Juvigold") ... 97
 Midgley & Parkinson, Ltd. (Yeast Preps.) ... lxxxviii
 Mills, H., & Sons, Ltd. (Showcases, &c.) ... lxxviii
 Modern Health Products, Ltd. (Natex Food) ... 85
 Molson Ionized Iodine Co., Ltd. ... lxxxviii
 Mono Containers, Ltd. (Hygienic Containers) ... lxxviii
 Monsanto Chemicals, Ltd. (Fine Chemicals) ... 93
 Moreland & Co. (Pine Oil, &c.) ... xxx
 Mosans Quinine Pessaries ... xlii
 Mundet Cork Products, Ltd. (Corks and Stoppers) ... xlviii
 Mysore, Trade Commissioner for, in London (Sandalwood Oil) ... 34
 Napp, H. R., Ltd. (Normacol) ... ix
 National Cash Register Co., Ltd., The ... lxi
 National Association of Opticians ... lxi
 National Glass Works (York), Ltd. (Bottles) ... xlvii
 National School of Chiropody ... xxxiii
 New Era Treatment Co., Ltd. (Elasto) ... xxi
 Newball & Mason, Ltd. (Extract of Herbs) ... 86
 Newcastle-on-Tyne Zinc Oxide Co., Ltd. ... 92
 Nobby's Products, Ltd. (Nobby's Extract) ... 60
 Old Strand Chemical & Drug Co., Ltd. ... xxix
 Olley, C., & Sons, Ltd. (Corks) ... lxiv
 Orridge & Co. (Valuers, &c.) ... Col. Supp.
 Paines & Byrne, Ltd. (Glandular Products) ... 79
 Paragon Razor Co. (Paragon Black Blades) ... 40
 Paramount Products, Ltd. (Confectionery) ... 54
 Park, Buckridge & Co. (Dartring Lanoline, &c.) ... lxx
 Parkinsons, Ltd. (Vitagrains, &c.) ... 98
 P.A.T.A. ... lxxi
 Patent Phosphates and Merchandise, Ltd. (Rice Starch) ... xviii
 Pepsodent, Ltd. (Price Reduction) ... 15
 Perken, Son & Co., Ltd. (Clinical Thermometers) ... xxxiii
 Perry's Powders, Ltd. (Head Powders) ... 54
 Piesse & Lubin, Ltd. (Anne Tudor Toilet Luxuries) ... 12
 Pifco, Ltd. (Sharpex Blade Sharpener) ... lxxx
 Pindar, J. W., & Co. (Machinery) ... lxi
 Pontampon Co. ... lxx
 Porteus, G., & Sons (Leeds), Ltd. (Machinery) ... lxxvii
 Potter & Clarke, Ltd. (Wholesale Druggists) ... 17-24
 Prescott, A. (Cocoa Butter, &c.) ... xviii
 Prescriber, The ... lxxx
 Prideaux's, Ltd. (English Dried Milk) ... 84
 Putnam's Dependable Service (Poultry Remedies) ... lxxv
 Radio Times, The ... 53
 Raimes, Clark & Co., Ltd. (Drugs, &c.) ... 64
 Ransom, W., & Son, Ltd. (Solid Extracts, &c.) ... xxxvii
 Rapidol, Ltd. (Inoxide Peroxide of Hydrogen) ... lxxx
 Reckitt & Sons, Ltd. (Dettol) ... 57
 Reid, T., & Sons (Bamyl Shaving Soap, &c.) ... 28
 Reed, A., Elder & Co., Ltd. (Camphor, &c.) ... iv
 Remington Typewriter Co., Ltd. (Noiseless Typewriter) ... 104
 Rendell, W. J., Ltd. (Quinine Pessaries) ... 61 & 62
 Reynolds & Branson, Ltd. (Surgical Sundries) ... lxxxviii
 Rhodes, Brydon & Youatt, Ltd. (Emulsifier Mixer) ... lxiv
 Richter Gedeon (G.B.), Ltd. (Organotherapeutical Products) ... Col. Supp.
 Riley, J., & Sons, Ltd. (Hypo, &c.) ... vi
 Robb, A., & Co., Ltd. (Nursery Biscuits) ... 56
 Robel, Ltd. (Beauty Aids) ... 14
 Roberts' Patent Filling Machine Co. ... lxxiii
 Robinson & Sons, Ltd. (Boxes, &c.) ... 116 & 117, xxxii & xxxiv
 Ronaldson, J., & Co. (Senna) ... lxxxviii
 Rose, J. L., Ltd. (Pyrogallie Acid, &c.) ... xvi
 Rosenwald Bros. ("Tidy-wear" Hair Nets) ... lxxx
 Rosmarie Manfg. Co. (Petal Dust) ... 32
 Roura & Forgas (Quicksilver) ... viii
 Rowland, A., & Sons, Ltd. (Macassar Oil) ... 40
 Rowlandson, W., & Co. (Machinery) ... lxxii
 Rozalex, Ltd. (Rozalex Ointment) ... lxxxviii
 Rutherford, J., & Co., Ltd. (Locarno Toilet Roll) ... xli
 Samson, Clark & Co., Ltd. ... 95
 Sangers, Ltd. (Service) ... 43
 Sasso, P., & Figli (Olive Oil) ... 120
 Saville Perfumery, Ltd. (Perfumery and Toilet Luxuries) ... 39
 Schering, Ltd. (Camphor B.P., &c.) ... 7
 Scholl's Manfg. Co., Ltd. (Foot Specialities) ... 71, 74
 Schutze, F., & Co., Ltd. (Surgical Appliances, &c.) ... xlv
 Scott & Bowne, Ltd. (William's Shaving Preparations) ... 38
 Scurr, C. A. (Optical Tuition) ... lxxxviii
 Shadeine Co. (Hair Dyes) ... lxxx
 Sharplin, W. J., Ltd. (Stoppers) ... lxxviii
 Sharpley, A. F., & Co., Ltd. (Veterinary Preparations) ... lxxv
 Siff Co., Ltd. (Obesiv Tablets) ... lxx
 Sim, Ltd. (Amoulee Files) ... iv
 Singleton & Cole, Ltd. (Tobacco) ... Leader Page
 Singleton, B. (Tanna Brand Liver Pills) ... lxxix
 Smith, H. E. A., Distributing Co., Ltd. (Distributing Agents) ... xix
 Smith, J. M., & Co. (London), Ltd. ("Jamesse" Toilet Preparations, &c.) ... 65
 Smith, Martin H., Co. (Ergoapil) ... 66
 Smith, T. & H., Ltd. (Alkaloids) ... xvi
 Solazzi Liqueur, Ltd. (Portia Sports Eye Shades) ... 41
 Souplex, Ltd. (Ladies' Shaving Set) ... 106
 Southalls (Birmingham), Ltd. (Sanitary Towels) ... xliii
 South of England College of Pharmacy ... lxxvi
 Speer, W. R., & Son (Toothbrushes) ... 40
 Spencer, Isaac, & Co. (Aberdeen), Ltd. (Cod Liver Oil) ... 89
 Starke, R. W. B. (Camomile Oil) ... lxxxviii
 Steel, Adams & Co. (Printing) ... xxxix
 Steiner, E., & Co. (Vermine Killer) ... lxxxv
 Stevens, Ltd. (Oils, Petroleum) ... 63
 Stevenson, H. E., & Co., Ltd. (Halibut Liver Oil) ... 64
 Surgical & Chemical Co., Ltd. (Hypodermic Syringes, &c.) ... xlv
 Surgical Hosiery Co., Ltd. (Elastic Hosiery, &c.) ... 36
 Suter, A. F., & Co., Ltd. (Gums) ... xix
 Swain, J., & Son (Blockmakers) ... xx
 Swann, W. R., & Co., Ltd. ("Kleen" Razor Blades) ... lxxx
 Synthite, Ltd. (Formaldehyde) ... xiv
 Thomas & Linton, Ltd. (Everhot Bags, &c.) ... lxxxviii
 Thompson & Capper Wholesale, Ltd. (Manesty Machinery) ... 118 & 119
 Thompsou, John (Wholesale Druggists, 1921), Ltd. (Toilet Specialities, &c.) ... xxxvii
 Thornton Pharmaceutical Laboratories, Ltd. (V.P. First Aid Outfit) ... xlii
 Thornton & Ross, Ltd. (Pennine Toilet Series) ... 56
 Thurlay, G. E., & Son (Sun Tan Oil) ... 28
 Tilbury, W. R., & Son (Toothbrushes) ... 38
 Tolkein, C., & Co., Ltd. (Butter-scotch Brand Malt & Oil, &c.) ... 84
 Toogood, Wm., Ltd. (Soapless Shampoos) ... 29
 Tower Pill & Tablet Co., Ltd. (Pills, &c.) ... xxx
 Town Talk Polish Co. (Liquid Silver Polish) ... lxxxii
 Tucker, A. Q., & Co., Ltd. (Asthma Remedy) ... lxxi
 Tyrer, T., & Co., Ltd. (Sterling Brand Chemicals) ... v
 United Drug Co., Ltd. (New Rexall Pelmet) ... 66
 United Glass Bottle Manufacturers, Ltd. (Toilet and Perfume Bottles, &c.) ... 91 & iv
 Varen, Ltd. (Liquid Nail Polish) ... 40
 Veno Drug Co., Ltd. (Veno Products) ... xi
 Viscose Development Co., Ltd. (Viscaps Bottle Capsules) ... liii
 Wagner, R. V. (Bottle Caps) ... xlviii
 Waide, Thos., & Sons, Ltd. (Printing) ... 115
 Walden, Walden & Co. (Nuxin) ... 32
 Walton, T. H., & Co., Ltd. (Compressed Tablets) ... xxxi
 Ward, T., & Sons, Ltd. (Wardonia Razor) ... 100
 Watson, Joseph, & Sons, Ltd. (Eve Shampoo) ... Col. Supp.
 Webb, Wm. A., Ltd. ("White Monarch" Balance) ... xxxiii
 Westminster College of Pharmacy ... lxxxii
 Whiffen & Sons, Ltd. (Bromides, &c.) ... Cover
 Whitaker & Co. (Kendal), Ltd. (Dyes) ... 42
 White, J. F., & Co. (Kompo) ... lxx
 Wilkinson, S. W., & Co. (Tablet Machines, &c.) ... lxx
 Williams, G. M., & Co. (Cystex) ... lxx
 Willows, Francis, Butler & Thompson, Ltd. (Galencials, &c.) ... x
 Wood Bros. Glass Co., Ltd. (Glassware) ... lix
 Woodrow, H. T., & Co., Ltd. (Poisons Registers) ... lxxx
 Wooldridge Medicine Co., Ltd. (Yestamin) ... lxxxviii
 Woolley, J., Sons & Co., Ltd. (Nurona Sun Tan Cream) ... xxxiii
 Wyleys, Ltd. (Bismuth and Magnesia Tropels, &c.) ... 59
 Zeal, G. H., Ltd. (Clinical Thermometers) ... xxxiv
 Zimmermann, A. & M. (Chemicals) ... vi
 Zimmermann, C., & Co., Ltd. (Halibut Liver Oil, &c.) ... xv

CAMPBOR

FLOWERS • TABLETS • SLABS B.P.

Schering Chemicals

CALCIUM GLYCEROPHOSPHATE (Neut. Sol.).
 CAFFEINE. THEOBROMINE. ACID TANNIC (All Grades).
 CAUSTIC POTASH (Sticks, Pellets and Flakes). HYDRO-
 QUINONE (Improved Quality). MENTHOL SYNTHETIC
 (Recryst.). MUSTARD OIL (Artificial). SANTONIN.
 TERPINEOL. TERPINOL. THYMOL (CRYST. B.P.). ACID
 TRICHLORACETIC. BARIUM SULPHATE B.P. (Purest for X-Ray
 Tests). CELLOIDIN. DIMETHYL SULPHATE. MUSK AMBRETTE.
 PIPERAZIN. RENNET, PURE (Powder and Liquid). SALOL
 UREA B.P. and Technical. URETHANE.

KAHLBAUM LABORATORY
 CHEMICALS FOR EXPORT ONLY

Trade Mark Brands

‘PROGYNON’

‘NEOTROPIN’

‘MEDINAL’

‘VASANO’

‘ARCANOL’

‘EUPHTHALMIN’

‘NEUTRALON’

‘TRIKRESOL’

‘PROGYNON B OLEOSUM’

‘UROSELECTAN B’

‘SOLGANAL B OLEOSUM’

‘ATOPHAN’ BALSAM

‘ARTHIGON’

‘FORMALIN’ ‘KRYSGOLGAN’

‘NOVATOPHAN’

‘UROTROPIN’

‘VERAMON’

‘CYLOTROPIN’

‘ATOPHAN’

‘ATOPHANYL’

‘BETA EUCAINE’

‘LÆVULOSE’

‘SYNTHALIN B’

‘VALISAN’ etc.

X-RAY PRODUCTS, CASSETTES,
 SCREENS, DEVELOPER, ETC.

SCHERING LTD.

188-192 High Holborn, London, W.C.1

BRILLIANT



In Universal Demand from Consistent Advertising

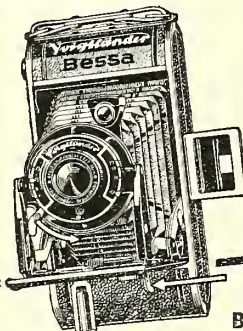
Voigtländer

Cameras and ILLUSTRAL Films

Maintain Adequate Stocks

Sole Importers and Wholesale Distributors:

SCHERING LTD. (Voigtländer Dept.)



BESSA



Quinine

AMSTERDAM BRAND
MAARSSSEN BRAND

QUININE and QUININE SALTS
QUININE ETHYL CARBONATE
CINCHONINE, CINCHONIDINE
QUINIDINE and their SALTS

Manufactured by

N.V. Amsterdamsche Chininefabriek, Amsterdam
N.V. Nederlandsche Kininefabriek, Maarssen

EXCLUSIVE DISTRIBUTORS FOR THE UNITED KINGDOM :

R.W. GREEFF & Co. Ltd.

Thames House, Queen Street Place, London, E.C.4

Phone : **Central 6550 (10 lines)**

Wires : " Greeff, Cannon, London "

and at

The Royal Exchange, Manchester

Phone : Blackfriars 9407-8.

Wires : " Greeff, Manchester "

'Rhodia'

B R A N D

Société des Usines Chimiques Rhône-Poulenc
PARIS

PHARMACEUTICAL PRODUCTS

Acetyl Paraminosalol
Acid Phenylethylbarbituric (and Sodium)
Adrenaline
Amidopyrazoline (Amidopyrin)
Chloroform
Digitalin
Ethyl Paraminobenzoate
Glycerophosphates
Guaiacol Carbonate
Guaiacol Crystals and Liquid
Lithium Salts

Methyl Salicylate
Methyl Sodium Arsinat
Paraldehyde
Phenacetin
Piperazine and Salts
Potassium Permanganate
Potassium Sulphoguaiacolate
Pyrazoline (Phenazone)
Pyrazoline Salicylate
Resorcin
Salol

PHOTOGRAPHIC PRODUCTS

Hydroquinone
Paramidophenol Hydrochlor.
Rhodol (Metol 100 per cent.)
Sodium Sulphite (Anhydrous)

TECHNICAL PRODUCTS

Cellulose Acetate and Plastic Materials
Resorcin
Pyrazolone Derivatives
Sodium Sulphite (Anhydrous)
Acetic Anhydride
Dimethylsulphate
O. Nitroanisol and O. Anisidine, etc.

VANILLIN
and SUPER VANILLIN

R.W. Greeff & Co. Ltd.

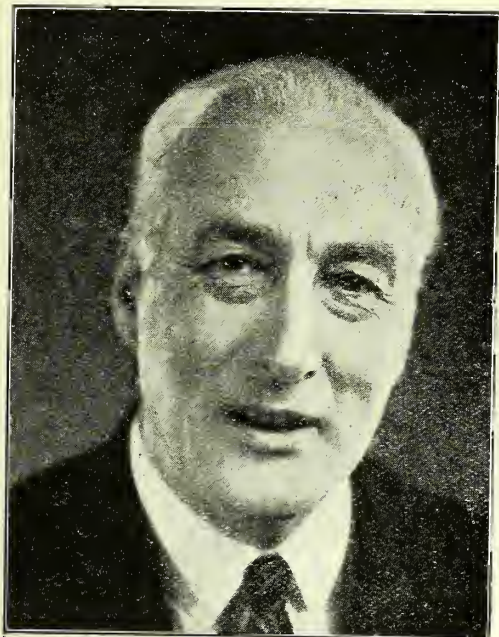
THAMES HOUSE, QUEEN STREET PLACE, LONDON, E.C.4
Phone: Central 6550 (10 lines)

Wires: "Greeff, Cannon, London."

and at 536-7 ROYAL EXCHANGE BUILDINGS, MANCHESTER

Phone: Blackfriars 9407-8.

Wires: "Greeff, Manchester."



“IT PAYS ME
TO CONCEN-
TRATE ON FAST
SELLING MAW
SUNDRIES.”

- MAW'S SPECIALISE IN A COMPLETE RANGE OF SUNDRIES.
- THEY DON'T JUST SELL TO ME! THEY PLAN SALES FOR ME.
- THEIR LATEST M.S.S. IS A SPLENDID ISSUE.
- THEY STAND ALONE FOR PACKING AND PRESENTATION.
- THEY OFFER ME A UNIQUE RANGE OF DISPLAY CASES AND COUNTER MERCHANDISERS.
- THEY SEND A COMPETENT REPRESENTATIVE TO VISIT ME REGULARLY.
- THEIR ENLARGED ALDERSGATE STREET SHOWROOM IS A REVELATION.
- THEY DESIGN A LARGE PROPORTION OF THEIR MERCHANDISE.
- CONSIDERING QUALITY AND PRESENTATION THEIR PRICES ARE HIGHLY COMPETITIVE.
- I FIND THAT THEIR REPUTATION PLUS MY PERSONAL RECOMMENDATION IS AN UNBEATABLE COMBINATION.

● ADVERTISEMENT OF S. MAW, SON & SONS, LTD.,
SUNDRIES MANUFACTURERS AND CREATORS OF REPUTE
7-12, ALDERSGATE STREET, LONDON, E.C.1. TELEPHONE: NATIONAL 2438

display



Created specially for the Chemist who has to meet keen competition, Anne Tudor offers the finest value for money in toilet preparations.

Compare them with anything in your shop—place them among your most expensive lines and you will realise that elegance of display—beautiful finish and striking value have been successfully combined.

Summer will bring an increased demand for cooling Lavenders, Colognes, Talcum Powders and Sun Tan preparations. Anne Tudor toiletries make easy and striking displays which will bring you increased business from those customers who seek keener value.

Anne Tudor

Bath Crystals, Talcum Powders, Lavenders, Colognes, Sun Tan Preparations
distributed by

Piesse and Lubin Ltd., Kersal Vale, Manchester

anne tudor

Evans' Super-Suspensible Carbonate of Bismuth

Purity Lightness Whiteness Super-Suspensibility
A Pharmaceutical Crescendo

Refinement upon Refinement

A sample and current prices sent post free on application to

Evans Sons Lescher & Webb Ltd.

LIVERPOOL

LONDON E.C.1

DUBLIN

A • V • A SPELLS PROFIT !

AVA SOAPLESS SHAMPOO
is ONE OF THE MOST PROFITABLE LINES you can stock
Your **PROFIT**, by buying in lots of 13 dozen, amounts to
AS MUCH AS 45%

Even if you prefer to start by stocking only 39 AVA SOAPLESS SHAMPOOS (13 to the dozen) your profit still amounts to **42%**
Nor do you have to stock a complex range of shampoos for different shades of hair. AVA is suitable for any colour or type.
During 1935 AVA SOAPLESS SHAMPOO is being extensively ADVERTISED in NEWSPAPERS AND WOMEN'S MAGAZINES having a total circulation of

165 MILLIONS !

Don't miss your share of this remunerative business. Order AVA SOAPLESS SHAMPOO from your wholesaler or post this order direct for

AVA

SOAPLESS SHAMPOO

To **AVA LTD.** 9 PARK HILL, CLAPHAM, LONDON, S.W.4
(Telephone : MACAULAY 2414-5)

Please send, carriage PAID..... Cartans each containing
39 AVA Soapless SHAMPOOS at 7/6 per carton
Nate—5% EXTRA DISCOUNT for 4 Cartans (13 dozen)

Signed

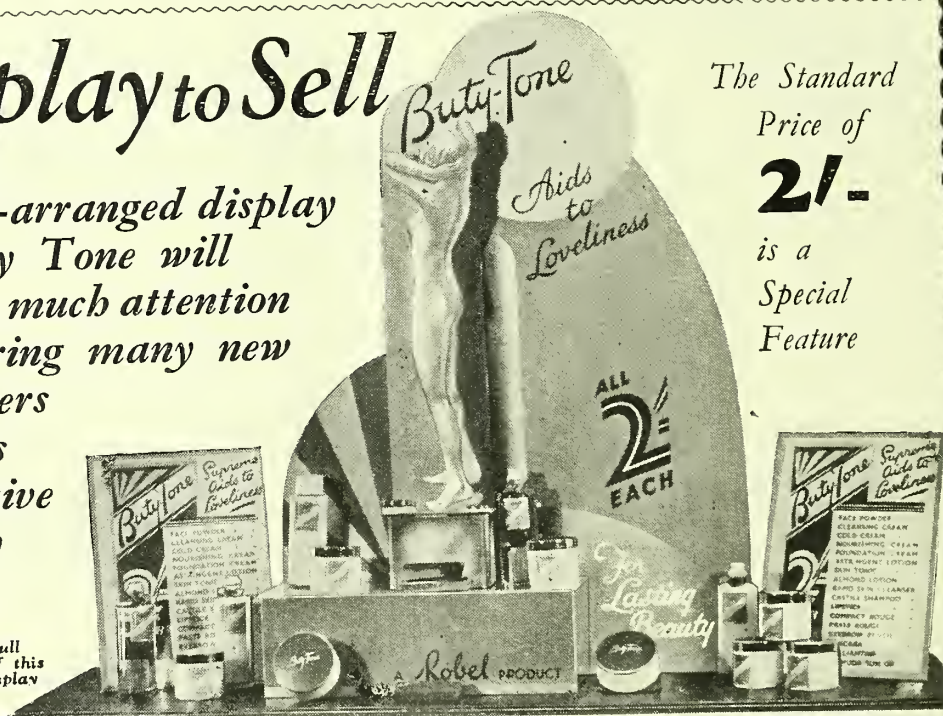
Pin this to your letter-head.

C.D.

Display to Sell

*A well-arranged display
of Buty Tone will
attract much attention
and bring many new
customers
for this
attractive
Beauty
Series*

Send for full
particulars of this
attractive display



The Standard
Price of
2/-
is a
Special
Feature

ROBEL LTD Eagle House, Jermyn St., London, S.W.1

MONDAY NEXT JULY 1ST ...

Pepsodent announces — by nation-wide press campaign

"reduced price — increased size"

On Monday next, the price of Pepsodent Tooth Paste will be *reduced* to 1/- and 1/9 . . . the size *increased* by 10%. Your customers will get MORE Pepsodent for LESS money.

How will the public know? We are going to tell them in one of the biggest National press campaigns of the year—large commanding spaces; arresting advertisements . . . all telling them to get their Pepsodent from their chemist . . . from *you*.

So see that you are well-stocked with the new-style Pepsodent to meet the demand.

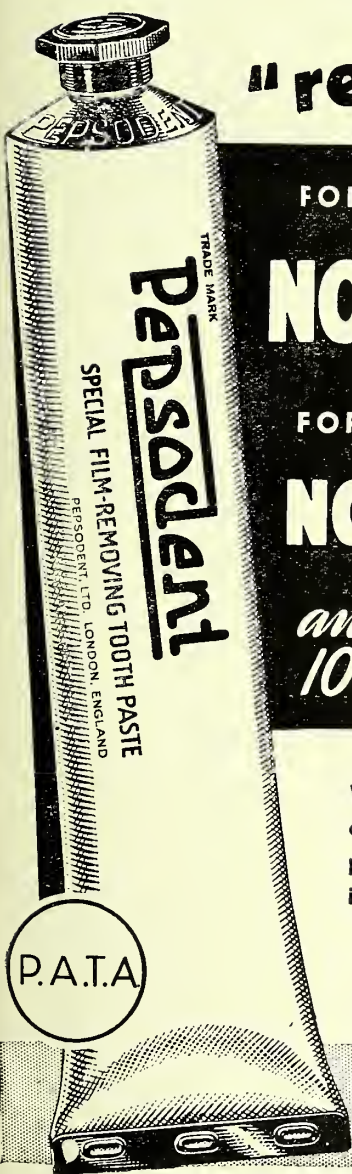
We have provided complete protection for you on old-style stock and difference in price, as notified in our recent circular. Please follow the procedure outlined very carefully. If you did not receive this notice write immediately for a copy to:

Pepsodent, Ltd., Park Royal Road, London, N.W.10

Telephone : Willesden 4871 Telegrams : Pepsodent Harles London.

(New prices not applicable in I.F.S.)

Your profit still 38%



DIXOR PRODUCTS



WELL WORTH DISPLAYING

VELOUTY de DIXOR

THE ORIGINAL COMBINED CREAM & POWDER

Tubes

No. 1..	..	4 1/2d.	..	3/-	per doz.
No. 2..	..	6d.	..	4/-	"
No. 3..	..	1/-	..	7/-	"
No. 4..	..	2/-	..	14/-	"
No. 5..	..	3/-	..	22/-	"

Made in five shades: White,
Ivory, Natural, Ochre and
Soleil Doré (Sungold).

Pots

Handbag (unbreakable)	13	..	10/-	per doz.
Glass	29	..	21/-	"
De Luxe (unbreakable)	46	..	36/-	"

CRÈME DIXOR

A day cream made in White only

Tubes	Small	..	..	6d.	..	3/-	per doz.
	Medium	..	..	1/-	..	7/-	"
	Large	..	..	2/-	..	14/-	"
	Super	..	..	3/-	..	22/-	"
Pots	Glass	..	..	29	..	21/-	"
	de Luxe (unbreakable)	..	..	46	..	36/-	"

IRADIUM

SKIN TONIC

de DIXOR

Bottles	Handbag Size	..	..	1/-	..	8/-	per doz.
	Small	..	..	26	..	18/-	"
	Large	..	..	56	..	39/-	"

EAU DIXOR

A liquid depilatory, for use on the arms and legs

Bottles	Small	..	..	1/-	..	8/-	per doz.
	Large	..	..	36	..	27/-	"

DIXORASE

A cream depilatory for use on the face

Tubes	Small	..	..	26	..	18/-	"
	Large	..	..	56	..	39/-	"

SHOW MATERIAL ON REQUEST

DIXOR LTD., St. Leonard's Works, MORTLAKE, S.W.14

LONDON

DIXOR

PARIS

BEAUTY PREPARATIONS



POTTER
AND
CLARKIE
LTD

LONDON

60-64 ARTILLERY LANE · E · 1

Telephone: BISHopsgate 4761 (6 lines)

Telegrams: "Horehound Phone London"

MANCHESTER

77 DANTZIC STREET · 4

Telephone: BLAckfriars 8734

Telegrams: "Horehound Manchester"

Potter's Extracts

*retain the
freshness of
the drug*

KESTNER
EVAPORATOR

STEAM PANS

POTTER & CLARKE

LTD.

60-64 ARTILLERY LANE, LONDON, E.1.

'Grams : "Horsehound, Phone, London."

'Phone : Bishopsgate 4761 (5 lines).

AND AT 77 DANTZIC STREET, MANCHESTER

'Grams : "Horsehound, Manchester."

'Phone : Blackfriars 8131.

Malted Slippery Elm Food

THIS REMARKABLE FOOD HAS BEEN DESCRIBED
AS THE MOST NOURISHING IN THE WORLD.
IT HAS A BENEFICIAL AND SOOTHING EFFECT
IN ALL CASES OF GASTRITIS, COLITIS, ETC.

Free samples for counter distribution

Handsome Showcards
supplied with all orders

IN FOUR SIZES

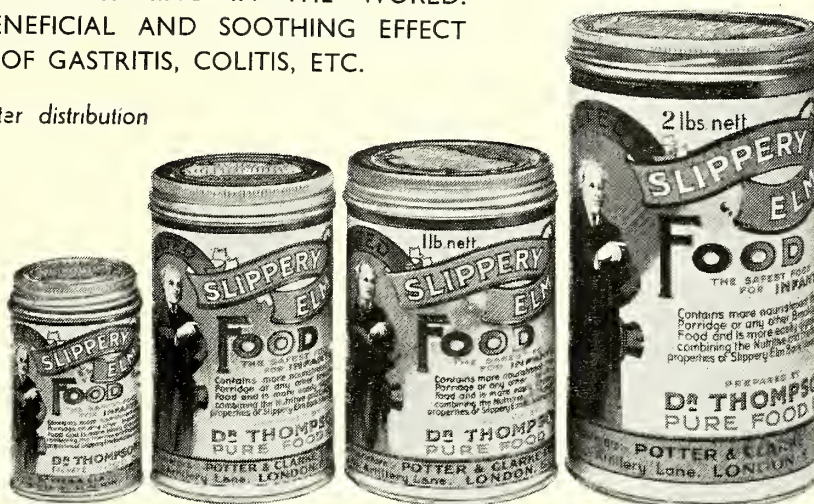
P.A.T.A.

9d. size 6/6 doz.

1s. 8d. „ 15/- „

2s. 0d. „ 1/6 each

3s. 8d. „ 2/8 „



Dr. Thompson's DANDELION COFFEE

for Dyspepsia

MADE ENTIRELY FROM
ENGLISH DANDELION
ROOT ROASTED AND
GROUND

In Enamelled Tins

P.A.T.A.

1s. 0d. size 8/- doz.

1s. 9d. „ 15/- „

3s. 0d. „ 26/- „



POTTER & CLARKE LTD.

60-64 ARTILLERY LANE, LONDON, E.1

'Grams : "Horehound, Phone, London."

'Phone : Bishopsgate 4761 (6 lines).

AND AT 77 DANTZIC STREET, MANCHESTER, 4

'Grams : "Horehound, Manchester."

'Phone : Blackfriars 8734.

...some Quick, Certain, Summer

These articles need only be given a counter or window space to sell. Order immediately and avoid lost sales.

SUN-TAN OIL and SUNBURN LOTION

Two lines that apply to the holiday season and are sure to be in demand. Chemists have found that these lines sell readily—prepare for quick sales and order now



LIDO SUNBURN LOTION

6d. size 4/- doz.

10½d. size 7/6 doz.



LIDO SUN-TAN OIL

6d. size - 4/- doz.
10½d. size 7/6 doz.

MATERIAL FOR DISPLAY

Attractive show material as illustrated is sent with each order for Sun-Tan Oil and Sunburn Lotion.

POTTER & CLARKE LTD

TELEPHONE: BISHOPSGATE 4761 (6 LINES)

TELEGRAMS: "HOREHOUND, PHONE, LONDON" (2 WORDS) :: :: AND AT

Selling Lines

SALINES

every description, to satisfy all customers :—
POTTER'S VITALIZING FRUIT SALINE
 contains no sugar, Glauber or Epsom Salts.

ALL THE YEAR ROUND HEALTH SALINE
 attractively packed in decorated tins.

CLARKE'S LIVER SALTS in decorated tins,
 and the **PURITY HEALTH SALT** in distinctive
 tins.

and our old favourite, **CITRATE of MAGNESIA**
 bottled in neat flats and cellophane wrapped.



DR. BUCHANAN'S ANTI-URIC SALTS
 are specially suitable for rheumatic
 and kidney troubles, and will bring you
 repeat customers. Presented with unique
 how stand printed in three colours.
 Price : 3 oz. tin 7d. Per dozen 4/9.



SALINES AND HEALTH SALTS

**Vitalizing
Fruit Saline.**
 1/1 size (4-oz.)
 7/6 per doz.

1/9 size (8 oz.)
 12/- per doz.

All the Year Round Health Salt
 (4 oz. tins), 4/6 per doz.

Clarke's Liver Salts. 6 1/2 d. tin
 (4-oz.) 4/- per doz.

The Purity Health Salt. 6d. tin
 (4 oz.) 3/6 per doz.

CITRATE OF MAGNESIA

(Effervescent)
 4 oz. weight
 Cheltenham
 (as illustrated)
 6/- per doz.

8 oz. weight

White Glass Kalls, 9/- per doz.

12 oz. weight White Glass Kalls,
 12/- per doz.

16 oz. weight White Glass Kalls,
 15/- per doz.



0/64, Artillery Lane, London, E.1

ANTZIC STREET, MANCHESTER, 4.

TELEGRAMS: "HOREHOUND, MANCHESTER."

TELEPHONE: BLACKFRIARS 8734

KASBAH
(REGISTERED)
KIDNEY CURE

PRICE
9^d

KASBAH FOR ALL KIDNEY COMPLAINTS

This extremely effective Showcard, 18 in. x 14 in. in full oriental colours supplied with all orders

KASBAH KIDNEY CURE

A great Herbal cure for Backache, Gravel, and diseases of the kidney and bladder

RETAIL P.A.T.A. **9^d** PACKET
per doz. 5/-

KASBAH
(REGISTERED)
KIDNEY CURE

A POSITIVE CURE FOR Backache, Gravel and all Diseases of the Kidneys and Bladder

KASBAH
(REGISTERED)
KIDNEY CURE

PREPARED SOLELY FROM NATURE'S HERBS

POTTER & CLARKE LTD.

60-64 ARTILLERY LANE, LONDON, E.1.

'Grams : "Horehound, Phone, London."

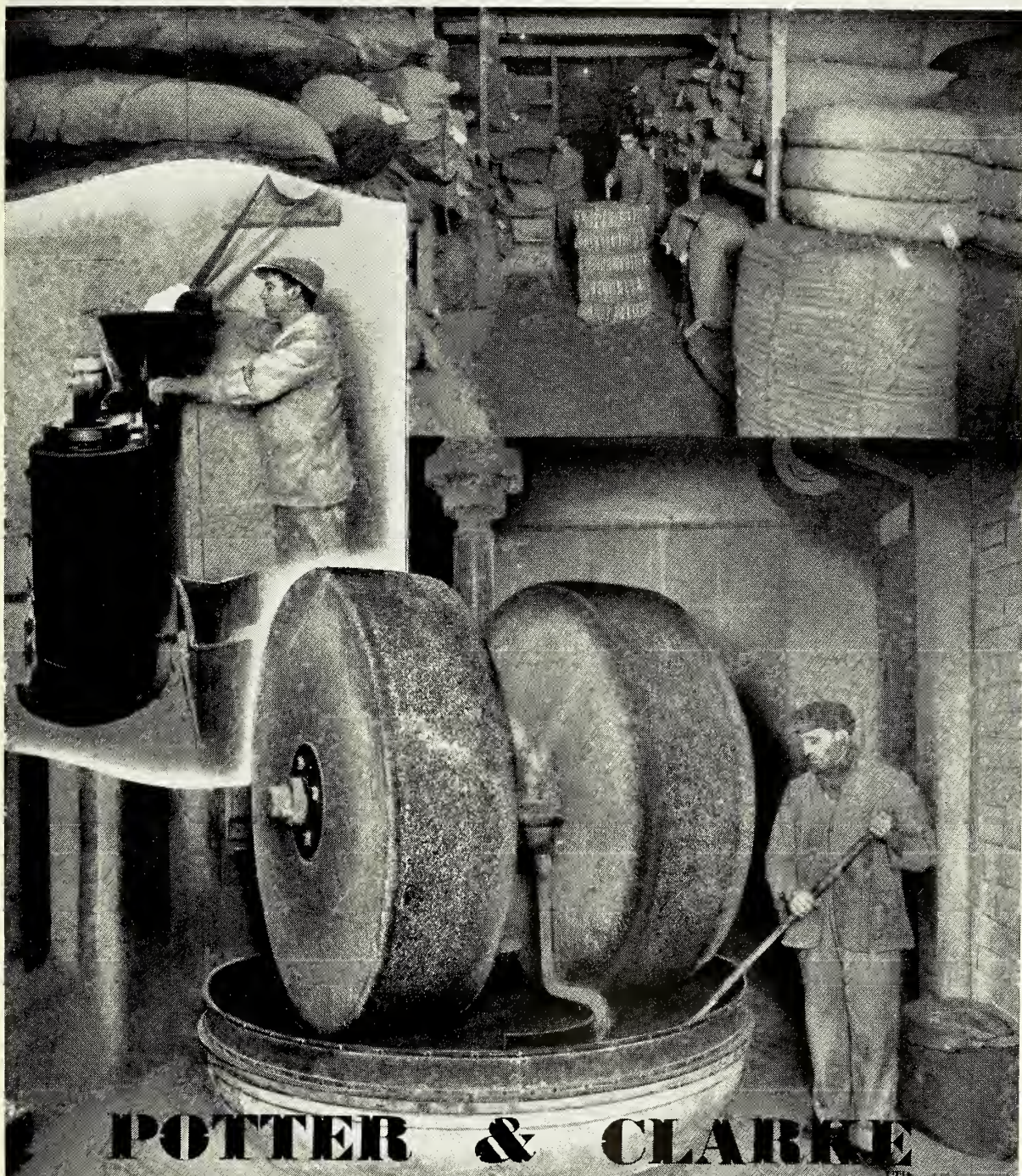
'Phone : Bishopsgate 4761 (6 lines).

AND AT 77 DANTZIC STREET, MANCHESTER 4.

'Grams : "Horehound, Manchester."

'Phone : Blackfriars 8734.

Crude Drugs to Fine Powders



POTTER & CLARKE

Telephone:
Rush pr. 4761 (5 lines)
Telegrams:
Blackburn 8771

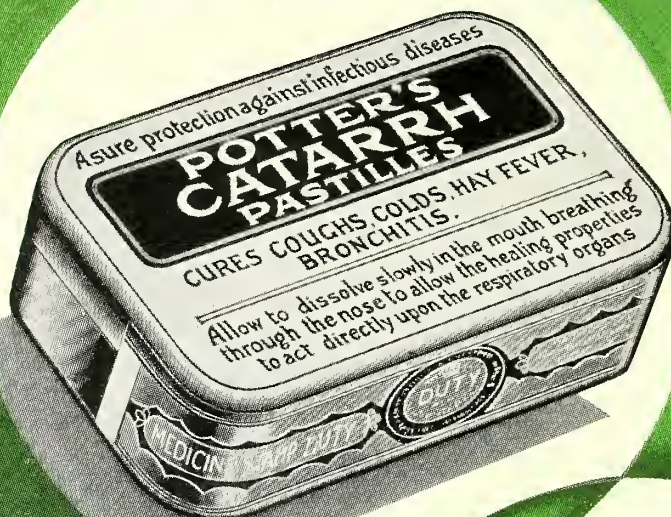
60-64 ARTILLERY LANE, LONDON, E.1

AND AT 77 DANTZIC STREET, MANCHESTER, 4

Telegrams: "H.C. and C."
Phone, London
Telegrams: "H.C. and C."
Manchester

POTTER'S

Catarrh Pastilles



National advertising
and unvarying quality
ensure a constant sale

P.A.T.A. 1/3, 11/- doz.

Packed in half-dozens

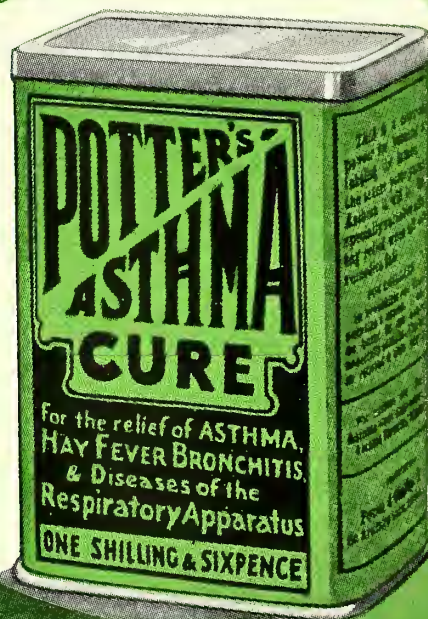
POTTER'S Asthma Cure

Consistently advertised
in all the great national
newspapers thus
ensuring a big demand

RETAIL 1/6

WHOLESALE 14/- per doz.

Packed in half-dozens



POTTER & CLARKE

LTD

60-64 ARTILLERY LANE, LONDON, E.1
77 DANTZIC STREET, MANCHESTER, 4

Phone: BISHopgate 4761 (5 lines)
Phone: BLAckfriars 8734

Grams: "Horehound Phone London"
Grams: "Horehound Manchester"

"HARLENE"

TOILET PREPARATIONS



"Harlene" Toilet Preparations, famous for 50 years for quality and merit, are ever increasing in popularity. Always backed by an extensive National Advertising Campaign, these real best sellers enjoy a regular and steady demand.

See that you hold ample stocks to meet the demand in your district for these popular lines. A postcard brings full particulars.

EDWARDS HARLENE LTD.
20/26 LAMBS CONDUIT STREET, LONDON, W.C.1

R. Demuth's Elegant Preparations



Carnate
NAIL POLISH

*PRODUCES A NATURAL
BRILLIANT POLISH*

*NOW OBTAINABLE IN THE NEW SCREW-CAP CONTAINER
1/9°*

Frozoclone

REGD

The Original
Solid Eau de Cologne

Retail 3/6 & 2/-
Per doz. 28/- & 16/-

Carnate

Nail Polish

Produces a natural brilliant polish.
Waterproof and Antiseptic. Now
obtainable in a new container with
screw cap, as illustrated.

Retail 1/9
Per doz. 14/-

Analax

The Popular Fruit Laxa-
tive in Pastille Form 2/3
per doz. 21/-

Harmozan

Pineneedle Extract
Bath Squares 3/9 & 2/-
per doz. 30/- & 16/-

Mirados

Preventative against In-
sect Bites. 1/3 per bott.
per doz. 10/-

Risiccol

Demuth's Castor Oil Powder
—in boxes containing 20
single dose bags, 3/-
per doz. 27/- Also in Bulk

Muthol

Paraffinum Liquidum in Solid
Emulsion, in three flavours,
Raspberry, Orange & Lemon.
Reputed 1-lb. Jars 4/-
per doz. 32/-

See that you secure these
Handsome Showcards illustrated here

R. Demuth's Laboratories

Phone :
MAIDA VALE 5340

68 SALUSBURY RD., & MONTROSE AV., N.W.6

*This
Beautiful
Showcard
in full
colours
will enhance
the appearance
of any
Pharmacy
and will
prove an
incentive to
increased
sales of
"Frozoclone"
the Original
Solid
Eau de
Cologne*

IN TWO SIZES
3s. 6d. & 2s. 6d.
Wholesale 28/- & 16/-
P. A. T. A.

Frozoclone

*There's
nothing quite
so refreshing*



THE ORIGINAL SOLID EAU de COLOGNE

2/- and 3/6

Dr. Page-Barker's GUARANTEED Scurf Lotion

The recognised specific for
SCURF and DANDRUFF
Known and Sold everywhere

A GUARANTEE
WITH EVERY BOTTLE
That's what sells it!

per **18/-** doz.

Smart Show matter

2/6

P.A.T.A.

THOS. CHRISTY & CO., LTD.
4-12 Old Swan Lane, London, E.C.



Wardonia
THE RAZOR
PARTICULAR
MEN PREFER

Year after year new sales records are created by the famous Wardonia Razors and Blades. Send your order NOW. Attractive display material free with all orders. Razors retail 1/- to 2/1. Blades 4 for 1/-.

Generous Trade Terms.

Sole Makers:
THOMAS WARD & SONS, LTD.
Wardonia Works, Sheffield 1

THE **WARDONIA** NEW
BARREL-HOLE BLADE
BLADES 4 FOR 1/-

SUN TAN OIL

A specially selected vegetable oil of exceptional quality.

Supplied in 2 gallon Cans or 5 gallon Drums.

Sample & Quotation on application to:

G. E. THURLEY & SON
UNITY WORKS
Latimer Road
LONDON, C.7



Every Chemist should stock Reid's

BAMYL

REGD.

- | | |
|--|-----|
| Shaving Soap (Bakelite) | 1/- |
| " (Refill) | 9d. |
| " "Junior" | 6d. |
| Shaving Cream, tube | 1/- |
| Shampoo (non spirit) | 1/- |
| Skin Soap, per tablet | 6d. |
| Balsamic Skin Soap (full strength Tar) | 6d. |

All Shaving lines are
Mentholated at same rates.

Sole Makers:

THOMAS REID & SONS, LTD., GLASGOW

ESTD. 1868

DIFFERENT + ANTISEPTIC + ATTRACTIVE + also great favourites with the Medical Profession.

PROFIT MARGIN **33 10/30**

Full range of Showcards, Display Cases, Pamphlets, Samples, sent gratis on application.



TOOGOOD'S SOAPLESS SHAMPOO Powders



In Envelopes

Boxes of 3 dozen, 24/- per gross

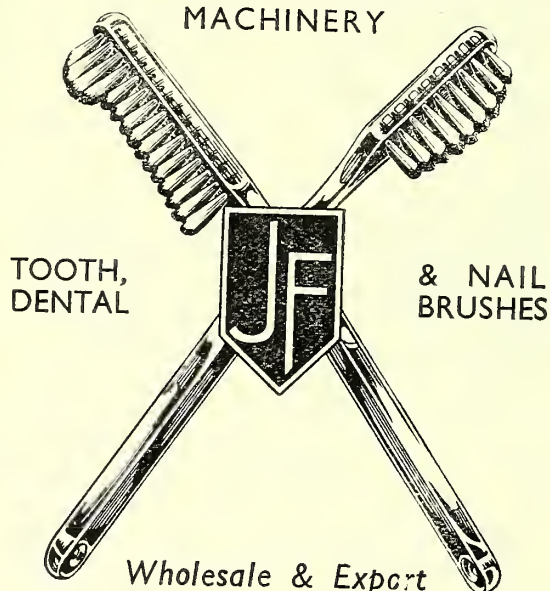


In Compressed Tablets
Show Boxes of 1 dozen
24/- per dozen Boxes

Manufactured by
WILLIAM TOOGOOD LTD.
77 SOUTHWARK ST., LONDON, S.E.1

Toothbrush Manufacturers to the Wholesale

COMPREHENSIVE RANGE OF
ALL QUALITIES MADE BY
HIGH-SPEED MODERN
MACHINERY



Wholesale & Export
Enquiries Invited

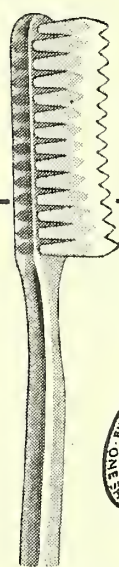
John Freeman & Co., Ltd.

HEAD OFFICE AND WORKS :
FOREST BRUSH WORKS,
LONGFELLOW ROAD, WALTHAMSTOW,
LONDON, E.17

City Office & Showrooms :
84 FORE STREET,
LONDON, E.C.2
Phone : Metropolitan 9556

Phones :
Walthamstow 1015-1016
Metropolitan 9556
Grams :
Spazzola, Ave, London
Cables : Spazzola, London

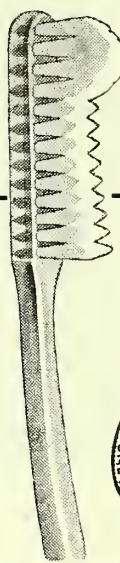
The 3 HALEX "BOB" BRUSHES



**LONG
HEAD**



**SHORT
HEAD**



**AND THE NEW
PROPHYLACTIC**



A Halex Toothbrush, in any shape, for a shilling! The trio of Bob Brushes completed now by the new Prophylactic! HALEX bristles—fine, upstanding bristles—which don't fear 'middle-aged spread.' Three bob brushes which are going to be immensely popular with your customers.

Big advertising in the papers your customers read—telling the story of the three "Bob" Brushes—and their resistance of middle-aged spread! Will you have sufficient stocks to meet the demand?

Every HALEX toothbrush is packed in a cellophane wrapper. It can be examined and felt without being touched! It will keep clean and hygienic until it's sold and opened.



THE HALEX RANGE

Nine toothbrushes. A dental plate brush. Two shaving brushes. The New Pneumatic Hairbrush.

HALEX

Registered Trade Mark

are made in England

Order from your usual wholesalers or

THE BRITISH XYLONITE COMPANY LIMITED • HALE END • LONDON • E.4

THREE MODERN ATTRACTIVE

KENT LINES

ESTABLISHED 1777

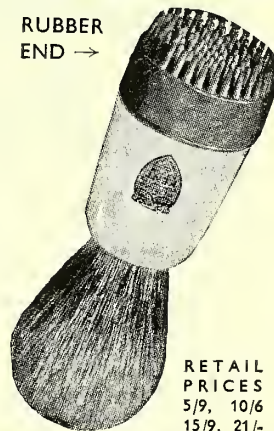
THE NEW MASSAGE SHAVING BRUSH (COSBY PATENT)

● The best Shaving Brush made because the rubber massage brush attached to the end of the handle works the soap right into the roots of the beard and gives the user all the advantages of a Barber's "rub-in"—the secret of a perfect shave.

● Its selling points are so compelling that customers will not wait until they need a new brush, but will be induced to purchase a "Kent Massage," thereby creating entirely new sales not available by the presentation of ordinary brushes.

'A RUB-IN MASSAGE GIVES A BARBER'S SHAVE'

RUBBER
END →

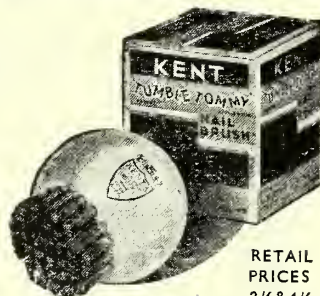


RETAIL
PRICES
5/9, 10/6
15/9, 21/-

"TUMBLE TOMMY" THE IDEAL NAIL BRUSH (COSBY PATENT)

- Always rolls into correct drainage position
- Rapid drying — no sodden bristles
- Comfortable ball grip
- Lasting wear as bristles always used in a different position

Made of pure bristle.
Handles in various attractive colours and finishes.



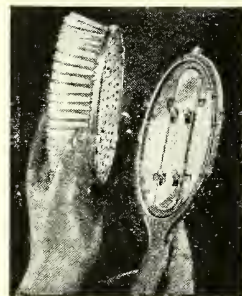
RETAIL
PRICES
2/6 & 4/6

KENT-COSBY (COSBY PATENT) HYGIENIC REFILLABLE HAIRBRUSH

- BRISTLES TAKE OUT TO WASH
- HANDLE BACK NEVER SPOILT BY WATER

Also in Military shape. Handle backs in various finishes. Bristle refills in various qualities of pure bristle. Also with rubber cushion base.

Retail prices, with Satin Finish or coloured handles - - 7/11, 12/6, 18/6, 30/-, 45/-



GENEROUS TRADE DISCOUNTS

ATTRACTIVE SHOWCARDS SUPPLIED.

WRITE FOR FURTHER PARTICULARS

MADE IN ENGLAND BY

G. B. KENT & SONS LTD.

75, FARRINGDON ROAD, LONDON, E.C.1

Telephone : HOLBORN 5066-7-8

Telegraphic Address : "TRICHO, LONDON"

*Increased Advertising
means Increased Sales &
Increased Profit for You*

NUFIX

Tonic Dressing for Men's Hair

is being extensively advertised in the National press and journals that men read, and the amazing increase in sales is ample assurance that there is an ever-increasing demand. Keep stocks up and display on our new show-stands and get your share in the increasing business.

Remember "NUFIX" has unique qualities appealing to discriminating purchasers. "NUFIX" retains its freshness and invigorating hair tonic properties indefinitely. "NUFIX" is easily poured, whatever the climatic conditions. "NUFIX" does not soil bed linen or headwear. Fixes without hardness or deposit and contains no gum.

Showcards, display stands, etc., supplied with all orders.

Small size, 9/- per doz.; Retail at 1/3; Large size, 12/6 per doz.; Retail at 1 9.
Miniature, 4/6 per doz.; Retail at 6d. 3 doz. at 4/3 per doz.; 6 doz. at 4/- per doz.

Carriage paid 3 doz. lots.

From usual wholesaler.



Manufacturers : WALDEN, WALDEN & CO., 15 Grape Street, London, W.C.2

EUCRYL

DENTIFRICES

TOOTH POWDER TOOTH PASTE

DENTURE POWDER

Bought on Display Terms yield

PROFIT ON
SELLING PRICE

43%

PROFIT ON
BUYING PRICE

75%

BRITISH OWNED

BRITISH MADE



EUCRYL LTD. Manufacturing Chemists - SOUTHAMPTON

The Public are Calling
for

PETAL DUST

*"Wherein the subtle savour of the Flowers
sublimely dwells."*

THE GREAT FLORAL AIR PURIFIER

A Trial will convince you that—

PETAL DUST, when once shown, creates its own demand, and is therefore a valuable adjunct to every "go-ahead" store.

PETAL DUST, when displayed prominently upon your counter, will attract prudent customers by the fragrance of its unique odour, which to-day is of such universal admiration.

Retails in packets at 4d. and 8d. each.

Attractive Advertising matter free on request.

Obtainable through all the usual Wholesale Houses or
from Sole Producers:—

The Rosmarine Manufacturing Co.
LONDON, S.E.1.

ALWAYS THROUGH THE TRADE

Lilly

PHARMACEUTICAL & BIOLOGICAL SPECIALITIES

Lilly products stand high among physicians; distribution is through the trade exclusively; Lilly quality is unexcelled; one discount only is offered to the entire retail trade.

Lilly products in demand:

ACIDULIN	EXTRALIN	HEPARMONE
AMERTAN	EPHEDRINE	LEXTRON
AMYTAL	PREPARATIONS	MERTHIOLATE
CARBARSONE	KAOMIN	PARA-THOR-MONE
CAS-CATHARTIC	HEMAGULEN	SODIUM AMYTAL
		THEAMIN

BIOLOGICAL PREPARATIONS

A complete range of Antitoxins, Serums and Vaccine is now available.

ELI LILLY & COMPANY LIMITED

AFFILIATED WITH ELI LILLY & COMPANY, INDIANAPOLIS, U.S.A.

2, 3 and 4 Dean Street, London, W. 1

Telephone: Gerrard 2144. Telegrams: "Lillypharm, Rath London."

IF IT BEARS A RED

Lilly

—IT'S RIGHT

SANDALWOOD OIL

Distilled from *SANTALUM ALBUM*. linn. at the MYSORE GOVT. FACTORIES

90%

ACTUAL SANTALOL
GUARANTEED B.P.
& U.S.P. STANDARDS
FOR FURTHER
INFORMATION APPLY



TRADE COMMISSIONER
for MYSORE in LONDON
GRAND BUILDINGS
TRAFALGAR SQ., W.C.2

THE METHODS OF DISTILLA-
TION AND CONTROL ADOPTED
IN THE FACTORIES OF THE
MYSORE GOVERNMENT ARE
SUCH THAT BUYERS MAY
REST ASSURED THAT EVERY
CONSIGNMENT OF EAST
INDIAN SANDALWOOD OIL
RECEIVED BY THEM WILL BE
OF PRACTICALLY IDENTICAL
COMPOSITION



Sole Agents for America:

Sole Agents for Canada:
Agent for Germany and
the Balkan States:

MESSRS. W. J. BUSH & CO., INC., 11 EAST 38th STREET, NEW YORK

MESSRS. W. J. BUSH & CO. (CANADA) LTD., 432 St. HELEN ST., MONTREAL

MR. LEOPOLD LASERSON, ALTE JACOBSTRASSE 20-22, BERLIN, GERMANY, S.W.68



FOR A PROFITABLE DISPLAY

Due to the cumulative effect of constant recommendation and consistent advertising, MOORLANDS are in greater demand than ever. Moreover, no other 7½d. nationally advertised article sells in such quantity as MOORLANDS and yields anything approaching the same percentage of profit.

It pays to display Moorlands

The Public will have

MOORLAND
BRAND
INDIGESTION TABLETS

W. B. CARTWRIGHT, LTD, Rawdon, Leeds.

SEAMED & SEAMLESS

SURGO ELASTIC HOSIERY

FOR SPECIAL
GARMENTS MADE TO
MEASURE WE MAINTAIN A

24 HOUR

SERVICE

TRUSSES

BODY BELTS

SUNDRIES

Write for Catalogue

SURGICAL HOSIERY CO., LTD

RUSSELL ST. NOTTINGHAM :

PHONE: NOTTINGHAM 75903
GRAMS: SURGICAL NOTTINGHAM

Still THE PERFUME IN GREATEST DEMAND

Evening in Paris

The ever growing demand for this fashionable range of toilet preparations is due to the fact that the public responds to consistent advertising and the impelling charm of a glorious perfume.

Why not reap your share of this profitable business with an attractive and arresting window display?

The Face Powder and Powder-Cream are marvellously popular—the Sun-tan Shade "Ocre-Soleil" being a special favourite just now. Write for showcards Nos. 0171 and 0187.

BOURJOIS LTD., Head Offices, Factory and Laboratories:
QUEENS WAY, CROYDON, SURREY.
London Showrooms: Standbrook House, 2-5, CLD BOND ST., W.1



BOURJOIS



THESE STANDS CREATE BUSINESS

The Laleek Stand as illustrated is unique both in its restrained dignity of design . . . and in its universal suitability for displaying a selection of my Preparations. You will appreciate that you are not limited to the display of the preparations shown, they may be changed at will . . . thus creating a regular interest and increasing demand for Laleek preparations.

The Laleek range of medically approved beauty aids, patronised by Royalty, are priced to suit all purses and cover every beauty need.
Write to me for details to-day.

THE LALEEK DISPLAY STAND



ADELAIDE GREY 27 OLD BOND ST.
LONDON. W.1.

THE
"Lady Nicotine"
Regd.
A popular Ladies' Brush

HARD WHITE
HARD YELLOW

W. R. TILBURY & SON
47 Frampton Park Rd., London.
Esrd. 1880 E.9

We shall welcome your enquiries for
SHAVING CREAMS

POMADE HONGROISE

POWDERED SOAP

SHAMPOO POWDERS

A. GIDLOW & CO. BROOM LANE, MANCHESTER
Telephone No.: Rusholme 2676

How are your Stocks of
WILLIAMS'
Shaving Preparations?

Sole Distributors:

SCOTT & BOWNE, LTD.
10/11 Stonecutter Street - London, E.C.4

5^D

**PROFIT
ON EVERY
NEW TAP-OUT
CONTAINER**

Your customers want Calvert's. They appreciate its pleasant refreshing flavour. They know how smoothly and thoroughly it cleans. Introduce the new pack to them. Its handiness will appeal at once.

CALVERT'S
carbolic Tooth Powder

A neat display stand is now available. Takes up little room but is a remarkable silent salesman.

Send p.c. to

F. C. CALVERT & CO., LTD., MANCHESTER



WANIE

8/- GROSS

The Blade for Every Razor!

Send for Samples to Dept. C.D.

**LONDON & PROVINCIAL
FACTORS, LTD.**

146 THEOBALDS ROAD, W.C.1

and at
16 WITHY GROVE, MANCHESTER

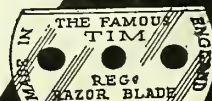
Enquiries from Irish Free State invited
Wholesalers are invited to apply for Trade Terms

3/9
GROSS

**BRITISH
BLADES**

**HAND
HONED**

TIM



Saville's

WORLD FAMOUS
PERFUMERY AND
TOILET LUXURIES
—OWE THEIR
UNRIVALLED POPULARITY
TO THEIR DISTINCTIVE
REFRESHING FRAGRANCE
AND UNIMPEACHABLE
QUALITY



"JUNE" PERFUMERY SERIES

PERFUME	-	1/3	2/6	4/6	7/6
POWDER	-	-	6d.	1/-	1/6
VANISHING CREAM		6d.	9d.	1/3	
TALCUM	-	-	9d.	1/3	
etc.					

"RED ROSES" PERFUMERY SERIES

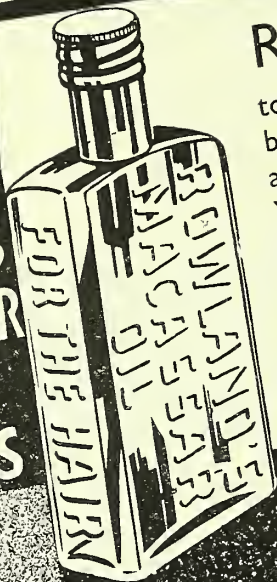
PERFUME	-	-	1/6	3/-	5/6
POWDER	-	-	6d.	1/-	2/6
VANISHING CREAM	-				1/3
CLEANSING CREAM	-				1/3
etc.					

Make a SPECIAL FEATURE of these Quick-selling
TOILETRIES in your Summer Window Displays
—Attractive Showcards sent FREE on Request.

SAVILLE PERFUMERY LTD., WATFORD, HERTS

BIGGER SALES...

FAMOUS
FOR OVER
140
YEARS



ROWLAND'S MACASSAR OIL has maintained its popularity as the leading hair tonic and dressing; this has been achieved because the merits of Rowland's Macassar Oil are fully substantiated by results obtained. You will do well to recommend a hair preparation of such world-wide fame.

In two forms—"Red" for dark hair,
"Golden" for fair or grey hair.

A. ROWLAND & SONS LTD.
22 Laystall Street, Rosebery Ave., E.C.1

ROWLAND'S MACASSAR OIL

VAREEN Liquid Nail Polish

Made in all colours. Own Shades or Materials matched.

FAVOURITE COLOURS:

Naturel, Pale Rose, Rose, Deep Rose, Lake Red, Pale Coral, Coral, Tango, Red, Dark Red, Orange, Pearl, Blush Pearl, Rose Pearl, etc.



NAIL POLISH.

1/- size - 7/6 doz.
1/6 " - 10/6 "
2/6 " - 16/- "

OILY
POLISH REMOVER.
1/- size - 7/6 doz.

CUTICLE CREAM.
1/- size - 7/6 doz.
1/6 " - 10/6 "

Vareen Nail White Pencil, which is also an effective Cuticle Remover. 1/- size, 7/6 doz.

FROM YOUR WHOLESALE.
VAREEN LTD., LONDON, W. 11.

A "PARAGON" PRODUCTION

Packed in Cartons
containing 6 Blades
Retail Price 1/-



All Paragon Blades
are price maintained

The "Paragon" Black
Hollowground Blade

The Most Perfect Hollow-
ground Blade ever produced

For Trade Terms and Samples apply to
your Wholesaler or to the Sole Makers:

The PARAGON RAZOR CO., SHEFFIELD, ENG.

"ODENTIC" PLATE BRUSH

Regd. No. 417637.



From all
Wholesalers.

Manufacturers:
W. R. Speer & Son (EST. 100 YEARS)
215 DALSTON LANE - LONDON, E. 8

SHOW**NON-FLAM****Portia**
Regdor **FABRIC****SPORTS EYESHADES**

especially during these weeks:

JUNE 24th onwards **TENNIS** at WIMBLEDON
(All England Championships)
JUNE 29th **R.A.F. DISPLAY** at HENDON
JULY 3rd/6th **ROWING** at HENLEY
(Henley Regatta)
JULY 6th **MOTORING** at BROOKLANDS
(British Empire Trophy)
JULY 8th **CRICKET** at LORDS
(Oxford v. Cambridge)
JULY 12th **ATHLETICS** at WHITE CITY
(A.A.A. Championships)

in conjunction with

— ALL —
SPORTING
— EVENTS —

Whether watching or playing,
these eyeshades are an invaluable
protection against eyestrain.



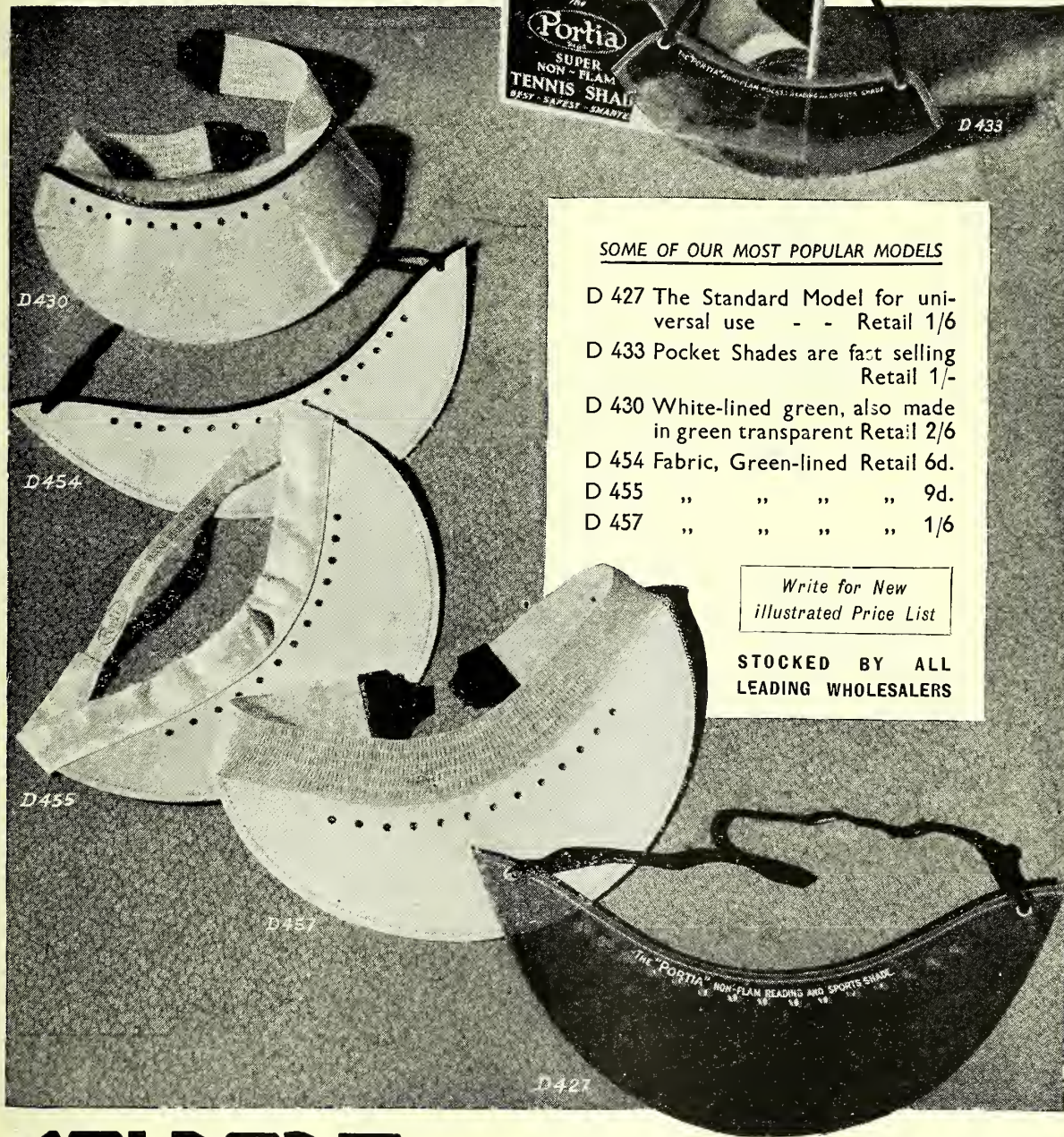
D 433

SOME OF OUR MOST POPULAR MODELS

- D 427 The Standard Model for uni-
versal use - - Retail 1/6
D 433 Pocket Shades are fast selling
Retail 1/-
D 430 White-lined green, also made
in green transparent Retail 2/6
D 454 Fabric, Green-lined Retail 6d.
D 455 " " " " 9d.
D 457 " " " " 1/6

Write for New
illustrated Price List

STOCKED BY ALL
LEADING WHOLESALERS



SOLPORT
BROTHERS LIMITED

184-192 GOSWELL ROAD, LONDON, E.C. Telephone 9211
(3 lines)

EXTRA PROFITS /

Home Dyeing is now the vogue. It will pay you to co-operate with us — the Chemists' Dye Specialists — in meeting the extensive demands of your Lady Customers. Our National Advertising directs them to you!



EXPORT
Special Prices
and Discounts

WRITE FOR
EXPORT
CATALOGUE

**ALWAYS
REMEMBER—**

you can recommend our goods with every confidence. They are ESSENTIALLY FIRST-CLASS PRODUCTS, tried and tested. Made from the finest raw materials only, they are backed by over 50 years' specialized experience.

Products of proved excellence for renovating the entire wardrobe :

LUTON STRAW HAT DYES
AURORAL COLD WATER DYES
WINNER HOME DYES
WINNER STOCKING DYES AND
VELT, THE HOME DRY CLEANER

Full Particulars, Special Terms and Patterns from
WHITAKER & CO. (KENDAL), LTD., Manufacturing Chemists, KENDAL, Eng.

Sangers
deliver
the goods

*Accurately
Speedily
and in
perfect
Condition*

Telephone—

**MUSEUM
5440**

Whatever you need
—Sangers have it! Huge
stocks are at your
service. Simply 'phone,
wire or post your order
to Sangers.

You can **rely** on Sangers
Service.

Sangers
LIMITED

258 EUSTON ROAD, N.W.1

Incorporating

MAY, ROBERTS & Co., Ltd.

7-13 CLERKENWELL ROAD, E.C.1

Phone: CLERKENWELL 8260

BRANCHES

BRISTOL
40-41 Redcliff Street

CARDIFF
Tredegar House,
Hope Street

LIVERPOOL
67-73 Duke Street

NEWCASTLE-on-TYNE
46-50 Elswick Road
PLYMOUTH
32-33 Kinterbury St.

‘DYANESE DYES’

Irresistibly appeal to EVERY woman!

FADELESS CURTAIN DYE

Dyanese Fadeless Curtain Dyes are particularly attractive to retailers. Tinted curtains are fashionable and every housewife is a likely buyer. Moreover, a woman usually buys several dyes at once—sufficient for all her curtains.

Price 24/- per gross

Dyanese Fadeless Curtain Dyes dye without heating and yet are fadeless even in strong sunlight. A wonderful but exclusive Dyanese feature. Ordinary dyes are useless for curtains—they rapidly fade in the sunlight to which curtains are continually exposed. In special and very charming curtain shades.



- 131 Cream
- 132 Biscuit
- 133 Green
- 134 Violet
- 135 Ecru
- 136 Lemon

- 137 Cocoa
- 138 Tomato
- 139 Coffee
- 140 Orange
- 141 Blue
- 142 Rubine

STRIPPIT

THE SAFE
DYE REMOVER

Price 32/- per gross



The Safe Dye Remover. Enables fabrics to be re-dyed a lighter shade, thus greatly increasing the scope of home dyeing.

DYANESE STOCKING DYE

Retail 2d.
16/- gross



Packed in pictorial cartons each containing 1 doz. dyes.

In 16 new exquisite shades.

Dyanese Stocking Dye is a product with tremendous feminine appeal. Every woman is intensely interested in stockings. Here is the means at negligible expense of always keeping her stockings to the latest and most fashionable shades. Makes faded stockings just like new.

- | | |
|---------------------------------|--------------|
| 101 Crevette | 109 Gazelle |
| 102 French | 110 Oak |
| 103 Nude | 111 Suntan |
| 104 Caramel | 112 Beige |
| 105 Cocoa | 113 Dago |
| 106 Rosita | 114 Shadow |
| 107 Mushroom | 115 Florence |
| 108 Brunette | 116 Gunmetal |
| 108 Duskee | |
| (BLACK (Retail 3d.) 24/- gross) | |

FADELESS COLD WATER DYE

Price 24/- per gross



Dyanese Fadeless Cold Water Dyes set quite a new standard in home dyeing. Their peculiar and extraordinary properties are quite exclusive to Dyanese.

In 12 fashionable shades

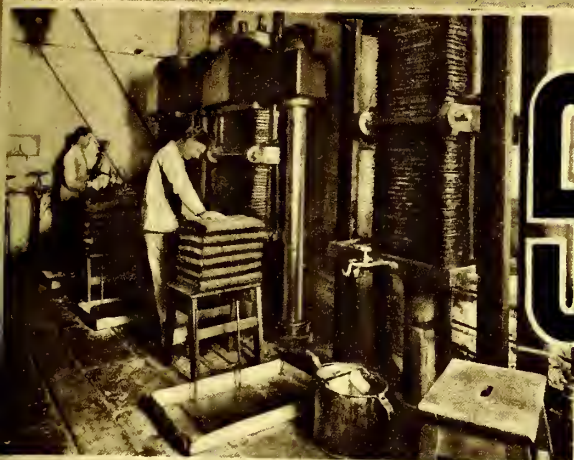
- | | |
|-------------------|-------------------|
| 143 Shell Pink | 149 Burgundy |
| 144 Hyacinth Blue | 150 Navy |
| 145 Regal Blue | 151 Fashion Green |
| 146 African Brown | 152 Flame Poppy |
| 147 Persian Gold | 153 Empire Purple |
| 148 Brique | 154 Black |
| | 155 Marina Green |

Free, handsome metal Showcase in three colours with order for 3-dozen Fadeless Curtain Dyes, 3-dozen Fadeless Cold Water Dyes, 6-dozen Stocking Dyes and 1-dozen Strippit. Total £1 2s. 8d. Cash Discount 2½%-8d. Nett Cash £1 2s. Pick your own shades or ask us to send best sellers.

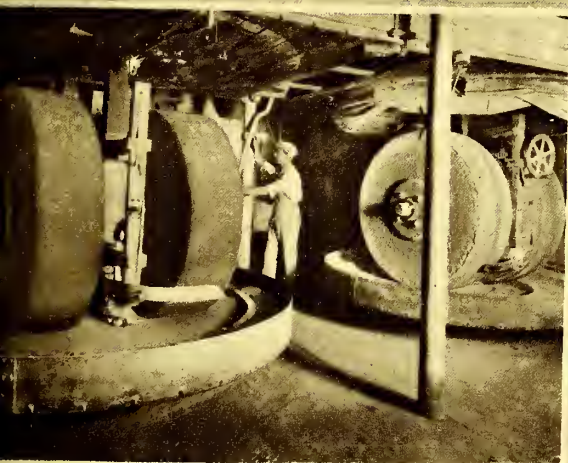
DYANESE LTD.
OLYMPIA BUILDINGS
BLACKPOOL

Sales Agents: W. B. CARTWRIGHT, Ltd., Randon, Leeds





ALMOND PRESSING



EDGE RUNNER MILLS



EVAPORATING PLANT

Staff Allens

EXTRACTS
TINCTURES
POWDERED
DRUGS & GUMS
ENGLISH
DISTILLED OILS
TERPENELESS OILS
ESSENCES



Harvesting Dill
at Long Melford

STAFFORD ALLEN & SONS LTD.

COWPER STREET + LONDON, E.C.2

Telephone : Clerkenwell 2100 (5 lines)

Telegrams : Stafalens, Finsquare, London

This Autumn your customers will

THIS MARK ON YOUR CO

★ **Superior Medicinal Cod Liver Oil**

★ **Guaranteed Vitamin Potency**

★ **Extracted on the High Seas for Freshness and produced in . . .**

Here is a Cod Liver Oil which is going to sweep the market on its proven merits. For the first time a British Firm is producing Cod Liver Oil for the British Consumer on a National scale. This is an oil of substantial and definitely guaranteed vitamin potency, produced under scientific conditions. Extracted on the high seas as soon as the fish are caught, this British product is characterized by

BRITISH COD LIVER OIL PRODUCERS (HULL) LTD.

THE WORLD'S LARGEST AND BEST EQUIPPED



expect to see

LIVER OIL

exceptional natural freshness and purity. An extensive and sustained advertising campaign will put this new product before the public. This Autumn they will expect to see the British Cod Liver Oil Trademark on the oil you offer them. Get into touch with your wholesalers now. You must be ready to share in the success of this British Cod Liver Oil.

., ST. ANDREW'S DOCK, HULL, ENG.
Phone : Hull 37759 Telegrams : "Vitamins, Hull."

REFINERY



Now Reduced!

BURGOYNE'S

UNIVERSAL FRUIT SALINE

Correct blending of carefully selected ingredients ensures a delicacy of flavour and vigorous effervescence which, combined with a freedom from sweetness, produces a particularly refreshing and agreeable draught.

May we send you a sample bottle?

P.A.T.A. 1/- 8/- dozen

P.A.T.A. 1/9 14/- dozen



Bonus: With orders for 3 dozen (assorted) 1 dozen miniatures will be supplied free
 With orders not less than 1 gross (assorted) for guaranteed window display, 1 gross miniatures will be given
 (The above terms do not apply outside Great Britain and Northern Ireland)

BURGOYNE, BURBIDGES & CO LTD.

MANUFACTURING CHEMISTS, INDUSTRIAL, PHARMACEUTICAL, TECHNICAL, WHOLESALE DRUGGISTS, ETC.
 LONDON, E.6

Phone: Grangewood 0685 (5 lines)

Grams: "Zotalene," Fergate, London

A FULLY-EQUIPPED PRINTING DEPARTMENT

provides for every requirement ranging from own name labels for the retail Pharmacist to the preparation of special packs and literature for advertised proprietaries.

**A
FULL RANGE OF
STANDARD TABLETS AND
PILLS** is manufactured and a comprehensive stock carried. **WE CAN SUPPLY EITHER IN BULK OR PACKED READY FOR SALE.** We specialize in National Formulary lines packed in convenient quantities from 100 upwards. Special N.F. price card sent on request.

buy from
**THE COOPER
LABORATORY**

THE SPECIALIST HOUSE, WATFORD

And ensure Quality, Service and Personal Attention to individual requirements, combined with competitive prices

SPECIAL FORMULÆ

The preparation of Tablets and Pills to customer's private and special formulæ receives the greatest care and attention. Any quantity, small or large.

EXPORT

Special quotations for export.
F.O.B. or C.I.F.

**OUR COMPREHENSIVE PRICE LIST WILL
HELP YOU TO INCREASE SALES
WRITE FOR IT NOW**

AYRTON'S *for* DRUGS *of* QUALITY



DUKE STREET PREMISES—FLOOR AREA
OF 60,000 SQUARE FEET

HANOVER STREET PREMISES—FLOOR AREA OF
90,000 SQUARE FEET

AYRTON SAUNDERS & CO. LTD.

OFFICES & SHOWROOMS - 32-36 HANOVER STREET
LABORATORIES - 30 to 42 DUKE STREET
SHOP FITTING - 24 BENSON STREET

TELEPHONE Royal 4861 (10 lines), Private Exchange - 50 Extensions
TELEGRAMS SUNDRIES, LIVERPOOL
CODES BENTLEYS, A.B.C. 5th, LIEBER'S and PRIVATE

LIVERPOOL 1, AND DUBLIN, C.9

(Postal Box 38 Liverpool, Eng.)

(44-46 North Lotts)



THE STEAM LABORATORY
Steam Vacuum Pans in action. Perspective do
scant justice to the larger units, but the phot
graph conveys a fair idea of "Products in Process"

Phone: Duhlin 43755
Telegrams: AYRTONS, DUBLIN

DRUGS, CHEMICALS GALENICALS, CREMORS OINTMENTS, EMULSIONS SALINES, TABLETS CAPSULES, PILLS

TABLET AND PILL MAKING

In the centre is a pill machine. In the background a battery of tablet machines. Solubility or quick disintegration depends to a large extent upon the manipulation of the ingredients; and herein chiefly lies the art of tablet making.

DRUG DESPATCH

The checking system must needs be efficient, and special rooms are allocated to D.D.A. Drugs, and Part I Poisons.

ANALYTICAL CONTROL

product into Stock until passed by our Analytical Staff." That is the principle which ensures a standard even higher than the B.P.

FLEXIBLE CAPSULES

The hand-made capsule room. All capsules are seamless and have an appearance, brightness and finish which cannot be matched by the machine-made article. Each capsule is accurate in dosage, tasteless, unaffected by climate, and represents the highest grade of product obtainable.

DRUG GRINDING

This corner shows an enormous Stone Mill. Many types of milling machines are in use for the different treatment of varying materials.

*Let Ayrton's quote
and submit samples*

"Dawn" (Regd.) face cloths

always command a ready sale because ladies appreciate their soft and durable qualities. They wear and wear and never become slimy, and—an important point—are entirely of **BRITISH MANUFACTURE**. They are of course in a class by themselves, being made by a patent Ravel Proof process, with loops on both sides and are a distinct advance on any other cloth on the market. Each cloth is cellophane wrapped and is

RAVEL PROOF

RETAILING AT

6^{D.}
EACH

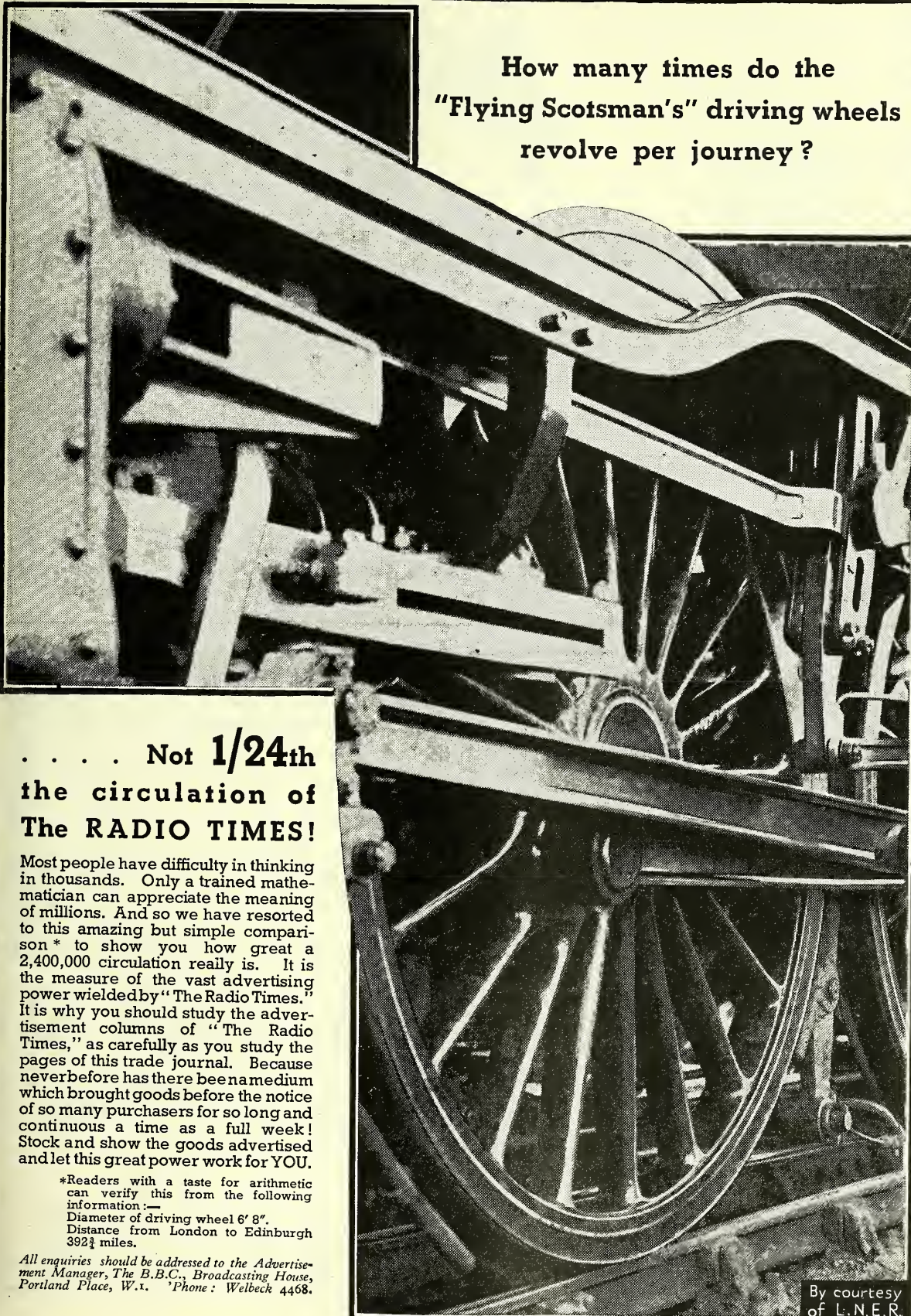
The range of delicate pastel shades makes an immediate appeal to the buyer and the new display outer illustrated above is a most excellent sales aid. It takes up little counter space—is neat and colourful—yet it ensures those **EXTRA** sales which mean so much these days. They show excellent profit. Your usual wholesaler can supply. Order a supply with your next goods and build up a regular trade in this popular line.

FAST COLOURS



Jacquesl Fabrics Ltd

How many times do the
"Flying Scotsman's" driving wheels
revolve per journey?



... Not $\frac{1}{24}$ th
the circulation of
The RADIO TIMES!

Most people have difficulty in thinking in thousands. Only a trained mathematician can appreciate the meaning of millions. And so we have resorted to this amazing but simple comparison * to show you how great a 2,400,000 circulation really is. It is the measure of the vast advertising power wielded by "The Radio Times." It is why you should study the advertisement columns of "The Radio Times," as carefully as you study the pages of this trade journal. Because never before has there been a medium which brought goods before the notice of so many purchasers for so long and continuous a time as a full week! Stock and show the goods advertised and let this great power work for YOU.

*Readers with a taste for arithmetic can verify this from the following information:—

Diameter of driving wheel 6' 8".
Distance from London to Edinburgh 392½ miles.

All enquiries should be addressed to the Advertisement Manager, The B.B.C., Broadcasting House, Portland Place, W.1. Phone: Welbeck 4468.

By courtesy
of L.N.E.R.

Visit



the

LEIPZIG INTERNATIONAL INDUSTRIES FAIR

The world's greatest market for the trade

Easy and competitive buying in all lines, including pharmaceutical, advertising and packing novelties and fancy goods

AUTUMN FAIR, 25th—29th AUGUST, 1935

CONSIDERABLE REDUCTION IN GERMAN RAILWAY FARES

For full particulars apply:—

LONDON OFFICE OF THE LEIPZIG FAIR,
34/36 Maddox Street, London, W.1.

Telegrams: Amtermesse, Wesdo.

Telephones: Mayfair 5616/7

NEW!



LAMBO— FLAVOUR CAPS

For Pudding
Cake
Ice-Cream
etc., etc.

LAMBO—LIMOCAPS For Lemonade

Working samples and particulars from the
sole manufacturers:

E.N.G.C.F.—LAMBO—BUSSUM—HOLLAND



Sole importers for all countries required
Correspondence invited



PRODUCTS

The 'CHEMISTS ONLY' Confections
that **SELL**

PERFECT PACKS
PRODIGIOUS SALES
PHARMACEUTICAL QUALITY

PARAMOUNT PRODUCTS LTD.
BRITANNIA HOUSE, BRADFORD
London Depot: St. Leonards, East Sheen, S.W.14



PERRY'S POWDERS

TRADE  MARK

GIVE A GOOD RETURN

NICE TO HANDLE—EASY TO SELL

Wholesale from **PERRY'S POWDERS, Ltd., LEEDS**

18/- Less 10%

SPECIAL OFFER

DURING JULY

This wonderfully effective new remedy has already achieved such popularity among the public that we have decided to offer this attractive counter container at a reduced rate during the month of July, on the eve of the holiday season. This striking container, shown on the right, is in bright blue and white, to match the six tins it contains

Each tin, or travel pack, retailing at 4/-, contains five doses individually packed. The action is immediate and certain, without unpleasant after-effects. Ample testimonials from well-known people confirm this.

A consistent demand for "WHITEWINGS" is being fostered by advertisements in the National Press. Why not avail yourself of the attractive advertising material that is available?

Enquiries and orders are already being dealt with from Holland, Belgium, France, Spain, Egypt, Morocco, India, S. Africa, etc.

TAKE ADVANTAGE OF OUR SPECIAL HOLIDAY OFFER AT SPECIAL DISCOUNT. ORDER THROUGH YOUR USUAL WHOLESALE, OR DIRECT FROM (Dept. C.D. 2), MEDIPAC PRODUCTS, LTD., 47 Princes Street, Ipswich

STOCK WHITE WINGS



This is the attractive "WHITEWINGS" Counter Display. It is 8 in. high, 2½ in. wide, and brightly conceived in Blue and White, and contains six Travel Packs, each of 5 Doses.



The "WHITEWINGS" Travel Pack, in Blue, Turquoise and Orange.

NOW!

PENNINE

Toilet Series



THORNTON & ROSS LTD., MILNSBRIDGE, HUDDERSFIELD

NEOKLENZ NATURE CURE

Ready to take in its natural state.

Cures Constipation and Rheumatism.
Cleanses the Liver and Kidneys.

9d. size 5/- per Doz.
1 Gross Free Samples with 3 Dozen.

Dr. NORMAN'S ASTHMA CIGARETTES

9d. size 6/- per Doz.
Smartly packed and Showcards.

ATLAS KATTLEKURE

The Wonder Ointment.

1/6 size 12/- per Doz.
2/6 " 20/- " "
5/- " 40/- " "

Your enquiries are invited and appreciated.

Sole Proprietors:
CARTER BROS., SHIPLEY, YORKS.

BATLEY'S YERBA MATÉ

The merits of this famous health tea from South America are well known. Stimulating, nourishing, it is invaluable for Rheumatism, Dyspepsia, &c. Once introduced it means regular customers all the year round. Why not get your share of this business? We will send you sample dozen elegantly packed for 9/- C.O.D.

BATLEY & Co. Stockport. Telephone 3323
Stockists: MAY ROBERTS & CO., LTD.

GARFIELD TEA FOR CONSTIPATION

Order from your Wholesaler

GARFIELD TEA CO. 44 Foxbourne Road,
BALHAM, LONDON, S.W.17

New campaign now
commencing will speed up
sales... meet the demand
by ordering to-day

Robb's

NURSERY BISCUITS

Of your wholesaler or
ALEX. ROBB & CO. LTD. (Dept. CT.2)
Nursery Biscuit Factory, Atkins Road,
Clapham Park, London,
S.W.12

ROBB'S
CHARGOAL
BISCUITS
First by
Merit—
Extremely
Palatable—
Not too
brittle. Do
not discolour
the mouth.

Show cards
and display
material
gladly sent
on request

Also
makers of
high quality
Rusks,
& Dietetic
Biscuits

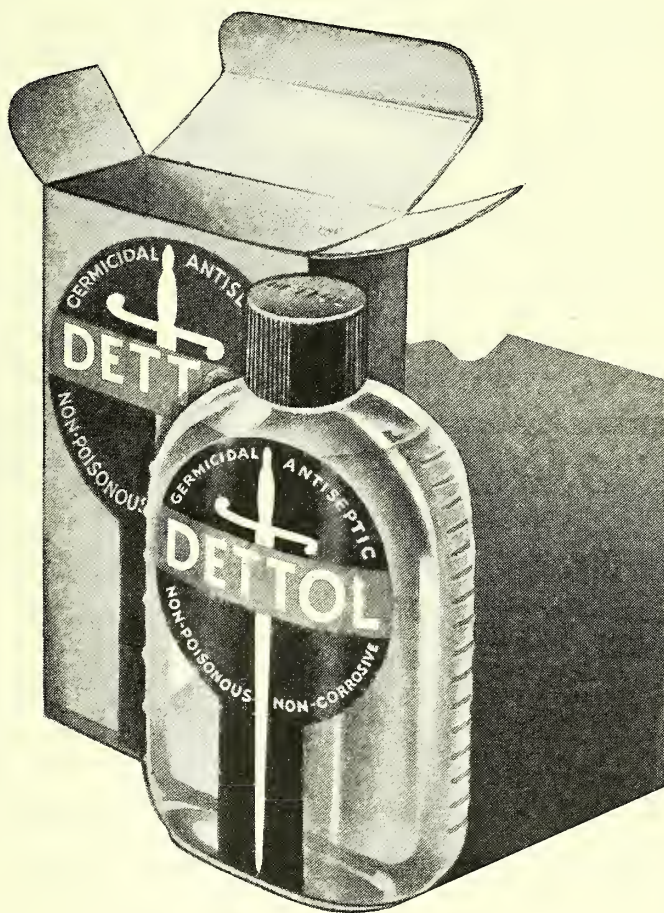
FOUND..

A remarkable antiseptic

Deadly to germs—bland to tissue

The bland properties of 'Dettol' permit its use at really effective strengths on body tissue and it thus possesses marked superiority over carbolic and cresylic antiseptics. 'Dettol' is non-poisonous, non-corrosive, non-staining and has an agreeable odour. It is three times more efficient than phenol, or half as strong again as B.P. solutions of cresols with soap.

'DETTOL'—most attractive in appearance and packing—sells at a reasonable price—4 ozs. for 1/-, 16 ozs. for 3/- and larger sizes for medical and hospital use.



'DETTOL'

TRADE MARK

THE NEW ANTISEPTIC

RECKITT AND SONS LTD. (PHARMACEUTICAL DEPT.), HULL. LONDON—40 BEDFORD SQUARE, W.C.1



"The box with the pink wrapper."

1/3 line showing 9½d. profit
Price 5/6 doz.; 2/6 size 8/- doz.

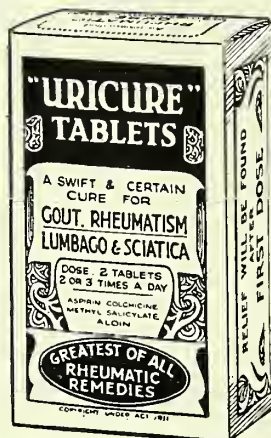
The "SPECIAL" pill introduced by us nearly 20 years ago has now a very large sale.

If you wish we print special labels to bear your own Brand, if you will order 6 dozen. You need only take 3 dozen now, and the balance as desired. Five different colours are available.

This is honestly a line worth running

A chemist writes: "This is one of the best lines I have ever tried. I only wish I had taken it up before."

If you have never stocked these pills, on receipt of request we will send free of charge half a dozen boxes in showbox, with showcard and counter bills—just to show you how well they sell.



A remedy that always gives satisfaction.

Name and address printed on two dozen.

1/3 size costs 7/-;
3/- size 17/6; 5/- size 25/- per doz.

Ask us to send you as free sample ½ doz. in counter box with showcards.



Finest quality of British Aspirin at lowest possible prices.

Name and address on labels

Prices in 6 doz. lots

assorted:—

(25)	2/6 doz.	} Carriage Paid
(50)	4/6 "	
(100)	6/6 "	
(12)	Tubes, 12/- gross	

THE ACTON PILL & TABLET CO., LTD., ASH VALE, SURREY

DOLS' VOLATALISE FLANNEL

is a medicated pure lambs' wool cloth of soft texture which is wonderfully effective in relieving obstinate cases of

Rheumatism, Neuritis, Sciatica, Lumbago, Bronchitis, Chest Troubles, &c.

DOLS' VOLATALISE FLANNEL SOX

Retail at 1/3 per pair. Steadily increasing sales year by year are an indication of their worth. They are packed in neat display outers, and command a ready sale. Customers come again and again for these sox. Why not order a trial supply?

It can be retailed in any length (about 28" wide) at the rate of 14/- per yard, and is also sold in boxes at 1/3 and 3/4, as Knee Caps, Body Belts, Chest and Back Protectors, &c. Dols' Volatalise Flannel is regularly prescribed by the medical profession, and your co-operation will be greatly appreciated. New illustrated booklet, with measurement charts and price list gladly sent on application, with trade terms.

Enquiries Invited.

DOLS' VOLATALISE FLANNEL LIMITED
VIADUCT STREET—HUDDERSFIELD

Sole Distributing Agents: The LANGHAM RUBBER Co., Ltd., 91 Fore St., London, E.C.2

IMPORTANT NOTICE

EADE'S RHEUMATIC and GOUT PILLS

The proprietors of this world-celebrated remedy are now engaged in a very active National Advertising Campaign which is already showing a good response.

Please, Mr. Chemist, look to your stocks and prepare for the demand which will surely reach you—Don't be caught short. To further assist you a liberal supply of good counter bills will be sent free on receipt of a postcard.

GEORGE EADE LTD., 232 Goswell Road, London, E.C.1

Telephone No.: 3547 Coventry

Telegraphic Address: "Wyleys, Coventry"

WYLEYS LIMITED

Wholesale Druggists and Manufacturing Chemists

COVENTRY

ESTABLISHED 1750

BISMUTH AND MAGNESIA TROPELS

(Registered)

Containing Bismuth, Magnesia, Pepsin, Bicarbonate of Soda and Peppermint. 7 lbs., 2/9 per lb.; 14 lbs., 2/8 per lb.; 28 lbs., 2/7 per lb.; 1 cwt., 2/6 per lb.

Envelopes and cartons free with all orders.

Handsome coloured showcards on application.

C.M.X. ANTISEPTIC

**CHLORO-META-XYLENOL IN A SAPON-
ACEOUS SOLUTION OF ESSENTIAL OILS**

... offers a wide field of utility. A new type of germicide, potent, non-poisonous, non-irritant, stainless, free from disadvantages of any kind and pleasant to use.

Its employment is indicated for MOUTH HYGIENE, COLDS AND SORE THROATS, HALITOSIS, PYORRHEA, UTERO-VAGINAL CATARRH, DENTAL PLATES, TEETH EXTRACTIONS, SURGICAL INSTRUMENTS, DRESSINGS, MIDWIFERY, ASEPSIS OF THE HANDS, ETC.

Retail Price: 4 oz. Bottle, 1/-; Winchester ($\frac{1}{2}$ gal.), 7/6; Gal. Can, 12/6.

Wholesale Price: 4 oz., 7/- per doz.; Winchester, 60/- per doz.; Cans, 102/- per doz.

ELIXIR BROMO-VALERIAN COMP.

An excellent Calmative and Nerve Sedative free from any disagreeable taste or odour.

Each fluid drachm (4 c.c.) contains:

Strontii Bromidi	...	...	5 grs.
Tinct. Valer. Deodorat	...	...	10 m.
Tinct. Adonis Vernalis	...	...	5 m.
Tinct. Visci Alb.	...	...	5 m.

Useful for functional nervous affections particularly in controlling epileptic seizures.

2/9 per 8 oz. Bottle. 5/- per 16 oz.

NUCLEOMINA

(Registered)

COMPOUND ELIXIR

A Pleasant and Effective Stimulant and Tonic.

NUCLEOMINA is especially useful in post-influenzal debility, neurasthenia, convalescence after surgical operations and in cases of faulty calcium and phosphorus metabolism.

Nucleomina forms a highly scientifically balanced combination of Nucleinic Acid, a yeast product, which promotes leucocytosis and a concentrate of the Vitamins A, B₁, B₂, and D, four essential health factors, with salts of Glycero-phosphoric Acid, Nux Vomica Alkaloids; and the Tinctures of Cola Acuminata and Scutellaria Lateriflora; valuable nervine tonics and stimulants.

Dose: Adults—One to four fluid drachms (4 to 16 cc.) as prescribed.
Children—15 to 60 mins. (1-4 c.c.) according to age.

Price: 1/6 per 4 oz. Bottle. 2/9 per 8 oz. Bottle.
5/- per 16 oz. Bottle.

IVESTRON

(Registered)

COMPOUND LIVER EXTRACT.

A palatable and effective hæmatinic of particular value in the treatment of pernicious anæmia and in anæmias due to defective nutrition.

Price: 4/6 per 8 oz. Bottle; 16 oz. 8/6;
In bulk, 8/- per lb.

SYRUP COCILLANA COMPOUND.

Each fluid ounce (28.5 c.c.) represents:

Tincture Cocillana	...	40 mins. (2.4 c.c.)
Tinct. Euphorbiæ Pilulifera	...	120 mins. (7.2 c.c.)
Syrup Wild Lettuce	...	120 mins. (7.2 c.c.)
Fluid Extract Squill	...	2 mins. (0.12 c.c.)
Fluid Extract Senega	...	2 mins. (0.12 c.c.)
Tartarated Antimony	...	1/23 grain (0.0020 gm.)
Cascarine (Wyleys)	...	8 grains (0.52 gm.)
Ethyl Morphine Hydrochlor.	...	$\frac{1}{4}$ grain (0.016 gm.)
Menthol	...	8/100 grain (0.005 gm.)

POISON—less than 1% Tartarated Antimony.
An efficient expectorant especially useful in bronchitis and asthma.

Dose: Adults—One fluid drachm, which may be repeated at intervals of 2 or 3 hours. Children—5 to 15 mins., according to age.
Price 3/6 per lb.

COMPOUND SYRUP OF PRUNES AND BANANAS

An agreeable combination of Prunes and Bananas and other Vegetable Laxatives. A Purely Vegetable Laxative for Adults and Children. Gentle in action and pleasant to take. In handsome coloured Cartons.

Retail Price: 1/3

Wholesale Price: 9/- dozen.

HANDSOME SHOWCARDS SUPPLIED WITH ORDERS.

"Therapeutic Suggestions" is helpful in prescribing. This Brochure and Full List of Drugs Free on Request.

HARKNESS, BEAUMONT & Co. LTD.

Drug, Chemical and Malt Extract Manufacturers

FOR

Strenthol Vitamin Malt, Sunray Malt and Malt & Oil, Bonum Irradiated Emulsion, Lactomaltine, Golden Grain Malt and Malt & Oil, Kem-Malt (Malt Extract with Parrish's Food), Kem-Maltol (Malt & Oil with Parrish's Food), Bonum Cod Liver Oil Emulsion, Sunray Vitamin Cream, Liquid Extract of Malt, Special Liquid Cascara, Cascara Cordial, Sunray and Lucca Cream Olive Oils, and General Packed Specialties.

JUNCTION BRIDGE CHEMICAL WORKS
LEITH, EDINBURGH, 6

Telephone: Leith 1326-1328.

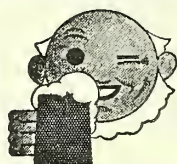
Telegrams: "Mercury, Edinburgh."

SAPO MOLLIS
VIRID B.P.

FOR PHARMACY & TOILET USE

We are in a specially favourable position to quote. Prices and Samples sent on application. Please state quantity required. Wholesale only.

BLEASDALE Ltd. MANUFACTURING CHEMISTS YORK



NOBBY'S
EXTRACT

SUMMER IS HERE—HOW ARE YOUR STOCKS?

You can increase your turnover and profits by displaying this seasonal line. Home Brewing is definitely in favour—get your share of the trade. May we send you a free sample tin and literature?

NOBBY'S PRODUCTS LTD., CHEAPSIDE, HYDE, Ches.

Dania

REGD. BRAND

SULPHUR CANDLES

RICHARD DANIEL & SON LTD

PHONE: DERBY 2222 (3 LINES)

GRAMS: DANIA, DERBY

Dania Brand Sulphur Candles are made with the finest Sulphur, free from Arsenic and Selenium. They light easily and burn safely and freely. Made in two sizes, nominal ½lb. and 1lb.

Mansfield Rd. Derby

ALSO MAKERS OF FORMALDEHYDE FUMIGATORS FOR USE WHERE A LIGHT IS DANGEROUS

THEY COME IN FOR **RENDELLS**

BECAUSE . . .

The National Advertising Campaign now in progress is building business in excess of all expectations.

For 50 years Rendell's have held the confidence of users, and to-day the public trust in them is stronger than ever.

There is nothing new or experimental in Rendell's, but it is a product of unequalled merit recognised and approved as the standard contraceptive.

To establish a complete sense of confidence it is always wise to offer "RENDELL'S" to those in need of a contraceptive. This is the one product which has an international reputation for purity and efficacy, and has been backed by the testimony of satisfied users for the past 50 years. Link up with our National Advertising Campaign by making an important display of this product.

Write for details:

W. J. RENDELL LTD.
161-5, Rosebery Avenue,
London, E.C.1.



RENDELL'S

THE SAME FAMILIAR PACK-

known throughout the whole civilised World.

Nothing new and experimental, but a product of unequalled merit, recognised and approved as the standard contraceptive.

For 50 years Rendell's have held the confidence of users, and to-day the public trust in them is stronger than ever. By supplying Rendell's, goodwill is developed 'twixt customer and chemist, bringing regular purchasers in its train.

The National Advertising Campaign now in progress is building business in excess of all expectations, and to reap the full benefit it is advisable to use the latest display material now available.

Write at once for full particulars:-
W.J. RENDELL LTD., Hardwick House,
161/5, Rosebery Avenue, London, E.C.1.

**FAMOUS
SINCE
1885**



**WRITE
AT ONCE
FOR FULL
PARTICULARS**

W.J. RENDELL LTD.

HARDWICK HOUSE,
161-165, ROSEBERY AVENUE,
LONDON, E.C.1.

PETROLEUM JELLIES

WHITE, LEMON, YELLOW, AMBER, RED, GREEN.

WHITE & COLOURED OILS

YELLOW, GREEN, RED FOR BRILLIANTINE, etc.

LIQUID PARAFFIN

COLOURLESS, TASTELESS, ODOURLESS.
ALL SPECIFIC GRAVITIES.

B.P. AND TECHNICAL QUALITIES

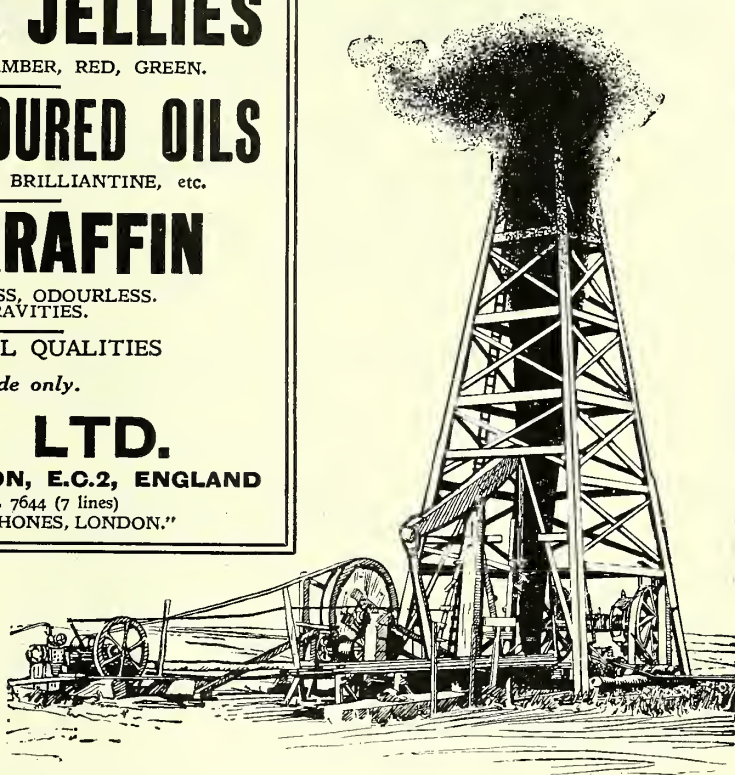
Wholesale Trade only.

STERNS LTD.

16 FINSBURY SQ., LONDON, E.C.2, ENGLAND

Telephone: NATIONAL 7644 (7 lines)

Telegrams: "CENTUMVIR, PHONES, LONDON."



10%

EXTRA PROFIT

OVER AND ABOVE
THE USUAL DISCOUNTS

This is the average extra profit,
consequent upon de-stamping,
provided for you by the new

Licoricine

ACTS LIKE MAGIC
BRAND

PRICE LIST

Obtain details from your Wholesaler.

RETAIL PRICES REMAIN UNCHANGED

ISSUED BY

MANDALL & CO., LTD.
TOWER WORKS
NEWCASTLE-ON-TYNE

5%

DISPLAY ALLOWANCE
ON ORDERS OF 1 DOZEN

INNER - CLEAN

P.A.T.A. prices

2/6 size — 22/6 doz.

4/6 size — 40/6 doz.

Order now this nationally advertised
Herbal Laxative on the above dis-
count terms from your usual whole-
saler or direct from the sole agents:

BROOKS & Warburton, Ltd.
232-240 Vauxhall Bridge Road
LONDON, S.W.1

RAIMES, CLARK & CO., Ltd.

ESTABLISHED 1816.

**Drugs, Chemicals, Galenicals
Malt Extract, Gelatine Capsules
Etc., Etc.**

*Manufacturers of Potassium Iodide, Resublimed Iodine
and Iodine Preparations*

Proprietors and Manufacturers of
MACLEAN'S REVALENTA

The Perfect Food for Children, Adults and Invalids.

RAIMES, CLARK & CO., Ltd., Manufacturing Chemists,
and Wholesale Druggists, **EDINBURGH**

Telegrams: "Raimes, Edinburgh."

'Phones: LEITH 893, 894, 895, 896.

Established 1880

H. E. STEVENSON & Co., Ltd.

10 Pancras Lane,
Queen Victoria Street, London, E.C.4

**Halibut
Liver Oil**

Finest Refined Quality

Biologically standardised for Vitamin A
& D and free from any added Vitamin.

IN BULK

Or in

5 c.c. vials in cartons. 15/- per dozen.

Also in

Bottles of 25 x 3 m Capsules beautifully
packed. 17/- per dozen.

H.L.O. Emulsion

**DIABETIC, OBESITY
AND
KETOGENIC DIETS**

A large variety of foods
which are prescribed by the
medical profession every-
where are manufactured by

CALLARD & COMPANY

FOOD SPECIALISTS

STANDEN ROAD, SOUTHFIELDS,
LONDON, S.W.18

West End Depot:

74 REGENT STREET, W.1

J. M. SMITH & CO. (LONDON) LTD.

Telephone :

Hampton Chemical Works,

NEW CROSS 0750

ARTHUR ST., OLD KENT RD., S.E.15

Established 1860

CAMPHORATED Oil. B.P.**CAMPHOR Salve** (Aluminium tins)
3d. size, 12s. gross.**CASTOR Oil B.P.** (Water White and
Tasteless—Italian.)**COD Liver Oil.** Finest Norwegian.**COD Liver Oil & Malt.** (In oval
jars.)**DRUGS.****EMBROCATIONS.** ("Universal,"
"Triumph Brand," "Extra
Strong.")**EUCALYPTUS Oil B.P.** (Australian
75% Water White.)**GLYCERINE B.P. S.G.** 1260.**Hydrogen Peroxide.** (10v., 20v., 30v.)**LYSOL.** "Nem Con." (Own name
and address—Black and White
design.)**MEDICINAL Liquid Paraffin.****Ointments.****Olive Oil B.P.** (Lucca or Provence.)**PEPPERMINT Oil.** (Jap Redist.)**Anti-Pyorrhœa Dental Cream.** (P.J.F.
Formula.)**Bay Rum.****Brilliantine.****Carbolic Tooth Powder.** Golden Shield.
Creemol.**Dentorex Dental Cream.** (Chemists'
most profitable Tooth Paste.)**Fullers Earth.** Jamesse Series.**Hair Creams.****Jamesse Dusting Powder.** (Square
dredgers for ladies after Bath.)**Lanoline Cream.****Mosquito Repellant.** (Yellow Cross.)**Moth Balls** (Lavender Perfumed),
Cellophane wrapped.**"Pinogen"** Toilet Rolls.**Peroxide Dental Cream.** (Own name
on cartons—Any quantity not
less than one dozen.)**Setting Lotions.****Sunburn Lotion.****Sun Tan Oil.****Toilet Paraffin.****Tooth Cleaning Tablets** Jamesse.
(Latest development of Dental
science.)**Zinc, Starch and Boric "Jamesse."****Zymate Tooth Paste.****Acids** (Acetic, Carbolic, Hydrochloric,
Nitric, Sulphuric, etc.)**Ammonia.** Cloudy.**Ammonia.** Fort 880.**Benzine.** Rectified. (In "safety"
screw cap tins—unbreakable.)**Camphor Squares.** $\frac{1}{4}$ oz. (Japanese.)**Carbolic Disinfecting Powder.** "Nem
Con." Decorated Tins.**Epsom Salts, B.P.** (Veterinary and
Commercial.)**Epsom Salts for the bath—Slimming.**
(7-lb. Bags.)**Glauber Salts, B.P.** (Veterinary and
Commercial.)**Methyl Salicylate, B.P.****Naphthalene.** (Balls, Flake and
Powder.)**Pinogen.** Pine Disinfecting Fluid.
(Decorated cans.)**Sanitary Fluids.** (Approved strengths.)
Decorated cans.**Soft Soaps.****Spirit of Salt.** (In 4-oz., 8-oz., and
12-oz. bottles.)**Sulphur.** (Powdered or Rock.)**Turpentine.** (American.)**SURGICAL DRESSINGS.**

On all Orders of not less than 6 Bottles of any packed Medicinal, Labels Printed CUSTOMER'S NAME AND ADDRESS FREE

"JAMESSE"

AIDS TO BEAUTY

PACK, PRICE AND PROFIT ARE RIGHT

	Retail Price. Per Bottle.	Trade Price. Per Doz.
"Jamesse" Spirit Setting Lotion... Will enhance the hair wave and prolong your perm. in- definitely.	2/6	22/6
"Jamesse" Plastic Wave Set ... For the close "slinky" coiffure.	2/6	22/6
"Jamesse" Brilliantine Feminin Revitalises dry scalps and hair. Overcomes dandruff.	2/6	22/6

These "Jamesse" Hair Toilets are all supplied in tall square pillar crystal glass bottles, fitted with black bakelite cap. An attractive addition to any dressing table.

WINDOW SHOW TERMS:

1 dozen less 10%.
3 dozen less 15%.
Bonus of 13 to the dozen

	Retail Price. Per Pot.	Trade Price. Per Doz.
"Jamesse" Lemon Cleansing Cream Cleans, whitens and softens the skin, creating an exceedingly attractive clear complexion.	1/-	8/-
"Jamesse" Vanishing Skin Food Created for day use as a base for the complexion powder. It protects the delicate skin tissues against the depreda- tions of inclement weather.	1/-	8/-
"Jamesse" Cold Cream ... Essentially a night cream. Has a cleaning and tonic action on the skin.	1/-	8/-

The Beauty Creams mentioned above are packed in a very attractive flat round opal jar fitted with black bakelite screw cap with silver and black labels.

"JAMESSE" SPIRIT SETTING LOTION is being extensively advertised—featuring the well-known star Renée Houston. (See: WOMAN & BEAUTY, MISS MODERN, WOMAN & HOME, etc.). A generous supply of postcard photographs of Renée Houston, with a facsimile of her personal testimonial, supplied with each order.

"JAMESSE" PRODUCTS (J. M. SMITH & CO. (LONDON) LTD.)
HAMPTON CHEMICAL WORKS, ARTHUR ST., OLD KENT RD., LONDON, S.E.15

Puretest
 PHARMACEUTICAL
 PREPARATIONS
 Puretest
 ASPIRIN
 TABLETS
 CASCARA
 TABLETS
 LIQUID
 PARAFFIN
 GLYCERIN
 & THYMOL
 BISMUTHATED
 MAGNESIA

Bring your
PRESCRIPTIONS
 to the
Rexall
 CHEMIST

Rexall
 FAMILY
 REMEDIES
 Rexall
 ORDERLIES
 FOR
 CONSTIPATION
 COUGH
 MIXTURE
 HEALTH
 SALT
 BLOOD
 PURIFIER
 KIDNEY
 PILLS

NOW READY!

Rexall

NEW PELMET

In response to hundreds of applications from Rexall Agents we have prepared a new Pelmet as illustrated.

- Enquiries from districts not covered by a Rexall Agency will receive every attention.

★

Free for
distribution
to all
Rexall
Agencies

UNITED DRUG COMPANY LTD., NOTTINGHAM

Change of name

EFFALKA

Owing to confusion with another trade mark, the name of this antacid preparation has been changed to

EFFALGEN

(TRADE MARK)

It is available in two sizes, i.e.,
 2 oz. bottles at 2/- and 14 oz. jars at 10/6

HARWOODS CHEMISTS LTD.
WATFORD, HERTS

CAVENDISH CHEMICAL CO. (NEW YORK) LTD.

137 Regent Street, London, W.1

ATOCIN tablets for Rheumatism, Lumbago, etc.
BISMOLAN suppositories and ointment
CARNACTON ampoules and for oral administration
CAVODOL Cod Liver Oil Compound Tablets
CAVODOL Cod Liver Oil Extract tablets with Iron and Colloidal Copper
ELIXIR NEUROGENIC (Cavendish) Tonic
LIPOLYSIN (Cavendish) tablets and ampoules
LECITHIN-YOHIMBIN tablets and Silver pills
PANCRESALETs for Diabetes Mellitus
TESTONAD and **OVANAD** tablets
YOHIMBIN tablets and ampoules

Literature and further information on request

Ergoapiol-(Smith)
 REG. U. S. PAT. OFF. & FOREIGN COUNTRIES

Constant prescription demand is assured by our continuous and extensive advertising campaign. An adequate stock of ERGOAPIOL should be maintained at all times. Supplied only in packages of twenty capsules each. For the mutual protection of the ethical pharmacist, the physician and our product, the initials "MHS" are embossed on the inner surface of each capsule, visible only when capsule is cut in half at seam as shown.

MARTIN H. SMITH COMPANY
 NEW YORK, N.Y., U.S.A.

THOS. CHRISTY & CO., LTD., OLD SWAN LANE, LONDON, E. C. 4
 Agents for Great Britain and Ireland

"Service before Sales"

We do not apologise for our inversion of the well-known slogan "Service after Sales." For we visualise the chain of distribution from Manufacturer to Wholesaler and from Wholesaler to Retailer as the reverse process—a series of services culminating in the final sale to the consumer.

Our business as we conceive it, Mr. Pharmacist, is to ensure that your orders are executed with the accuracy and delivered with the promptness upon which that final sale depends.

Large stocks, fast deliveries and a competent staff, provide the entirely reliable service you need.

For all Proprietaries, Foods, Wines, Surgical Dressings, etc. Proprietors of Domco Malt & Oil and other specialities.

P.A.T.A. Wholesalers.

TELEPHONE
BLACKFRIARS
9851 · 2 · 3

D.
MAWDSLEY & CO

**4 & 6 RIGA STREET · SHUDEHILL
MANCHESTER · 4**

"STERULES"



Available for Hypodermic, Intravenous and Intramuscular injection, also for Inhalation.

We are conducting an extensive advertising campaign throughout the Medical Profession.

Please note that the word

"STERULES"

is a registered Trade Mark.

W. MARTINDALE

London

'Phone: Langham 2441

'Grams: "Martindale Chemist London"

*Doctors have proved
the supreme therapeutic
effectiveness of*

ARGYROL

*Now prescribed more than
ever before!*

The efficacy of Argyrol brand Silver Vitellin has been tested and proved through 25 years of medical recognition.

Eminent physicians and surgeons recommend this unique, original product as the ideal bactericide against those virulent and obstinate micro-organisms that invade the delicate mucous membranes. Argyrol is quicker, safer and more effective than any other silver salt and is non-toxic and non-irritant.

Prescriptions specifying Argyrol should be meticulously adhered to in order that there may be

no risk of damage to sensitive tissues.

Make sure, therefore, that you have adequate supplies of Argyrol to fill your prescriptions.



SOLE DISTRIBUTORS: FASSETT & JOHNSON, LTD., 86, CLERKENWELL ROAD, LONDON, E.C.

Collosol Zinc Cream



The new coloured jars
are set off to perfection
by the silver foil show-
stand illustrated above.

*in its new pack
3 colours, green
blue and black*

Bonus Terms
12/-

per dozen subject
(13 to the dozen.)

RETAIL 1/3



Collosol Zinc Cream will attain increased popularity with women following the introduction of this new moulded jar in attractive colours—an ornament to any dressing table.

Collosol Zinc Cream is linked with all Crookes Halibut Liver Oil sales—your customers will know about it and you can reap the profit.

An added attraction is the support it receives from the medical profession.

For those who prefer it, Collosol Zinc Cream is still available in the original tube at the same price

THE CROOKES LABORATORIES (British Colloids Ltd.) Park Royal, London, N.W.



BURROUGH'S

TRY OUR EXTRA RECTIFIED

FOR YOUR PERFUMERY

SVR

FOR YOUR TINCTURES

ABSOLUTE ALCOHOL

DUTY PAID
and
DUTY FREE
for
EXPORT
and
SCIENTIFIC
PURPOSES.

"BEEFEATER" GIN — THE Purest and Best.

"WHITE CROSS" WHISKY, BRANDY
and RUM

"Quinta Real" Elegant Old Tawny Port.

Burrough's Invalid Port.
Ports for Medicating Purposes.
"Donzardo" Sherry — Delicate
Pale Dry.
Spanish Sherry for Ipecac. Wine.
Lime Juice Cordial.
British Sherry

"Bourg Frères" Champagne, in
Bottles, ½-Bottles, and ¼-Bottles.
Orange Wine.
Orange Quinine.
"Bell Bird" Australian Wines.
Lemon, Orange and Grape Squashes.

British Ruby, Tawny and White
Port Style Wines

Write for Samples and Quotations stating if you hold a Wine Licence.

JAS. BURROUGH Ltd.

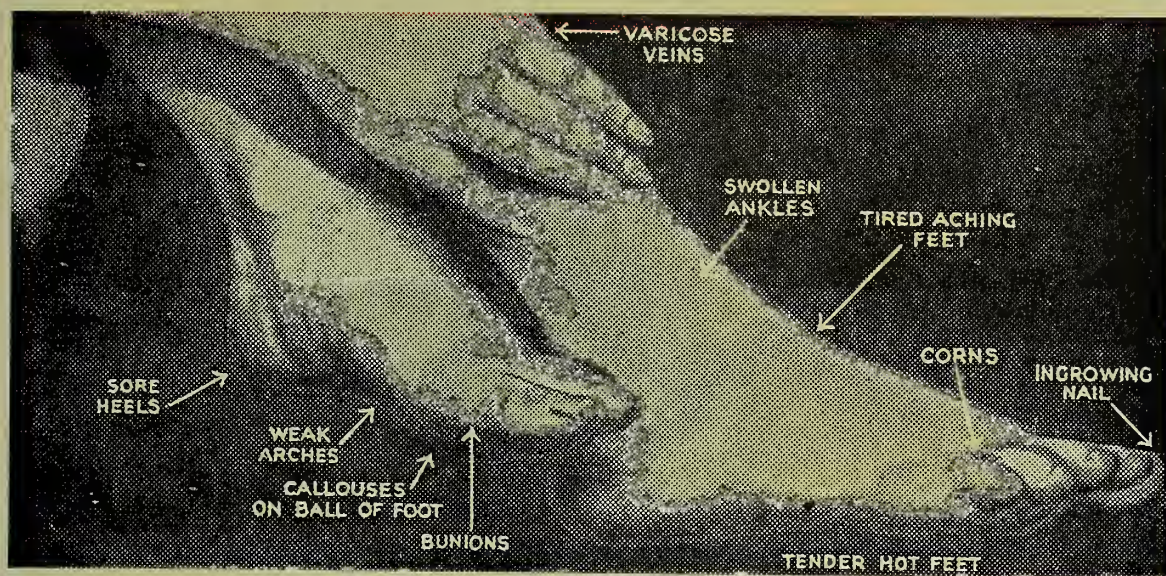
4 Cale Distillery,
Lambeth, S.E.11

Telegrams: "Burrocale, Phone, London."

Estab. at Chelsea 1820.

Telephone: Reliance 1166

SALES GUIDE TO *Dr. Scholl's* AIDS TO FOOT COMFORT



SEVEN PEOPLE OUT OF EVERY TEN IN YOUR LOCALITY NEED ADVICE ABOUT FOOT COMFORT

Though the importance of foot comfort and the serious effects of foot pains on general health and working efficiency are becoming more and more appreciated, the amount of time, energy and money lost through foot ailments still runs into tremendous totals annually.

Statistics recently compiled have proved that seven out of every ten people suffer from some form of foot trouble and medical research has discovered that many forms of bodily ill-health can be traced directly to foot disorders.

The purpose of this Sales Guide is to provide you with information regarding the more common foot ailments and to suggest the appropriate Dr. Scholl's Aids to Foot Comfort which will bring relief and correction.

Dr. Scholl's Aids to Foot Comfort—perfected after years of constant experiment and research have, through consistent and ceaseless advertising and the faith that foot sufferers have in them, become known throughout the world.

In advising Dr. Scholl's Aids to Foot Comfort for your customers, you are offering them the finest and most widely recognised remedies, which have for 25 years helped foot sufferers to obtain relief and foot comfort.

Dr. Scholl's

AIDS TO FOOT COMFORT

THE MORE PREVALENT FOOT TROUBLES, CAUSES AND METHODS OF BRINGING RELIEF AND CORRECTION

CORNS.—Of all foot troubles, corns are by far the most common. Corns are not taken as seriously as they should be. The experience of most people is that even when they rid themselves of corns, it is not long before these painful growths reappear. That is why you are so often asked the question: "What do you recommend for corns?"

Here lies your greatest opportunity to build a reputation for your knowledge about feet.

Intelligent, constructive selling of a corn remedy should begin by an explanation of the cause of corns which, as you know, is due to friction and pressure of shoes. Tight shoes and shoes too large also rub and irritate until the skin hardens and thickens and forms a hard, cone-shaped mass that presses down on the nerve.

Dr. Scholl's Zino Pads remove the cause of corns. They instantly end all pain because they protect the corn from contact with the shoe and stocking, and are absolutely safe and sure. No harm can come from their use. The most tender skin will not be irritated by them. Mildly medicated, soothing, protective, healing and easily applied.

Explain that a corn may be removed quickly, without danger of infection or irritation of the live tissue surrounding it, by using a Dr. Scholl Zino Pad with the Medicated Disk on the centre of the corn, then applying the Pad over the Disk.

For making new shoes fit with old shoe ease, Zino Pads are unrivalled. By simply applying them wherever the shoe presses or rubs and causes irritation, absolute relief will follow. If the corn is of a hard deep-seated variety, then the combination of Dr. Scholl's Corn Salve with a Zino Pad will safely remove the entire mass of tissue. Again, if a corn covers only a small area, suggest Dr. Scholl's "2" Drop Corn Remedy.



Corn Zino Pad

BUNIONS.—There is nothing more painful or more annoying than a bunion or enlarged and inflamed toe joint. Bunions are produced by various causes—usually narrow, pointed shoes—sometimes short and pointed stockings or shoes of wrong fit, although sprains, strains and other injuries may have caused the deformity. Very often bunions are associated with flat foot.

Bunions are not only painful, but they are disfiguring—spoil the shape of the shoe. Yet they can be relieved and their appearance completely concealed.

The first objective in giving the sufferer relief is to remove the cause, the second to relieve pain, the third to reduce the enlargement, the fourth to hide the bulge as much as possible.

Dr. Scholl's Zino Pads for Bunions. This soothing, healing, mildly medicated, antiseptic, protective pad removes the cause of the bunion—pressure of the shoe. Instantly stops the pains and quickly clears up the irritation.

Every box of Dr. Scholl's Zino Pads for Bunions now contains Medicated Disks which, when applied, release a penetrating medicament which quickly relieves the pain.

Dr. Scholl's BUNION REDUCER.—A shield of pure rubber, prevents all pressure and friction of the shoe, relieves pain and hides the deformity by filling out hollow spaces. It forms somewhat of an airtight pocket over the swollen joint, which retains the natural warmth and moisture, thus reducing the tissues, preventing further growth and gradually reducing the enlargement by absorption. Care should be taken to provide the customer with correct size.



Bunion Reducer

Dr. Scholl's TOE FLEX.—Straightens the crooked whether it is overlapping or underlapping, brings back into position and corrects the cause of the bunion. It induces better circulation and builds up the crippled structure and tissues.

For bunions of long standing and unusual severity, Scholl's Bunion Spring acts as a lever by drawing the great toe into normal position. Should be worn at night while Toe Flex is worn during the day.

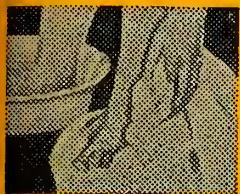
Pain, burning and throbbing sensations and inflammation around a bunion can be quickly dispelled by Dr. Scholl's Bunion Lotion, and when used in conjunction with other Dr. Scholl's Devices for Bunions, it facilitates correct and relief.

For especially painful bunions, stiff joints, arthritis or rheumatic or gout pains in the great toe joints, Dr. Scholl's Wenal Ointment is recommended. It makes the muscles more elastic and responsive to the Bunion Corrective.

It is advisable to ascertain the size of the bunion and location at the shoe to give the best service to your customer.



Toe Flex



TIRE, TENDER FEET.

Scholl's Bath Salts—for deoiling and cleansing and helping function of the skin in eliminating the unhealthy waste products. Will relieve and soothe tired, tender feet. Cases of rheumatism, Sciatica, Lumbago, or Skin disturbances reduced when Bath Salts added to



TURNED OVER ANKLES.

Many people subject the inner side of the foot to abnormal weight, due to the line of gravity, which in a normal foot passes through the second or third metatarsal head, coming nearer to the first metatarsal head, and thus is made to bear excessive weight. This often results in callouses on the inner side of the heel and great toe joint. Dr. Scholl's Walk Strate will correct this deformity and prevent any abnormal strain on ankle joint.



SPREADING FEET.

When there is weakness in the instep arch and where the foot spreads at this point, Dr. Scholl's Arch Binder will give most satisfactory results by binding the muscles and bones in a normal position. Relieves all mild cases of foot strain and tired feet. It is designed to fit the waist of the foot neatly and comfortably, and may be worn either under or over the stocking.



ITCHING FEET AND TOES.

Epidermophytosis. This is the most prevalent of all skin troubles. It causes a softening and whitening and peeling of the skin and intense itching between the toes. If not treated immediately may spread to other parts of the body. Common among golfers, athletes and those that frequent public swimming baths. Dr. Scholl's Solvex is a safe and effective treatment.



HOT, PERSPIRING FEET.

Scholl's Foot Powder is soothing and cooling to hot, itchy and perspiring feet, and for relieving foot tenderness and preventing discomfort from tight shoes. It has valuable medicinal and deodorising qualities. Should be sprinkled on feet or in shoes and stockings.



ACHING, SWOLLEN FEET.

When a person has been active on his feet, the blood vessels expand, causing swelling and a generally hot, tender and feverish condition. Dr. Scholl's Massage Cream, massaged carefully and well into the skin, relieves the aching and swelling feeling. Will also bring relief to bunions, chilblains and skin disorders.

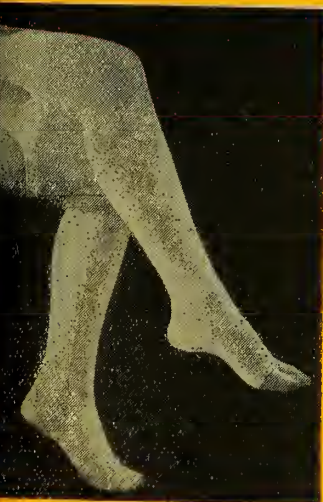


INGROWN TOE NAILS.

Where there is inflammation and irritation around the groove of the nail, this is caused by the nail having taken an ingrowing tendency. This is a most painful and distressing condition of the foot. Dr. Scholl's Onixol is a safe treatment to recommend, inflammation is removed, and healthy tissue appears and permanent relief is effected.

The information contained in this leaflet, although much condensed, is valuable and you should keep this leaflet for your future references.

For further information regarding any of Dr. Scholl's Aids to Foot Comfort, or of instructive courses on the care of the feet, please write to The Scholl Mfg. Co. Ltd., 182/194, St. John Street, LONDON, E.C. 1.



VARICOSE VEINS AND TREATMENT

Within recent years, an entirely new method of treatment for Varicose Veins, usually described as the "Injection method," has been introduced.

To bring about a good result, it is necessary to produce occlusion of the vein, and this can best be accomplished if the injection is assisted by external support.

This method has an additional advantage in that patients are able to go about their ordinary daily routine without any interference whatsoever.

Dr. Scholl's Rubberless Corrective Hosiery is a valuable aid in this treatment.

1. *Before the Injection treatment*: the girth of the leg in oedematous cases is reduced; the risk of complications caused by irritation is eliminated; the necessary support is given to the veins.

2. *During treatment*: pressure of the stocking can be regulated to assist occlusion of the vein; aid is given in abolishing the varicose circulation; oedema is diminished; the healthy veins are protected; and the pain is relieved.

3. *After treatment*: the Stocking gives support to the veins, which is essential while they become strong and healthy. Lack of support has been the main contributory cause of the varix. The veins during treatment darken, and after treatment small dark patches, which resemble a bruise, appear. This condition is unsightly and Dr. Scholl's Corrective Hosiery (invisible under ordinary hose) prevents the dark patches from being seen.

Rubber is used in the manufacture of Dr. Scholl's Rubberless Corrective Hosiery. The pressure is obtained through the elastic weave and the suspender adjustment. Consequently there is no danger of the irritation which often results when rubber is present. Also Rubberless Stockings, being easily washable, can be kept cleaner than elastic stockings. Dr. Scholl's Rubberless Corrective Hosiery is accepted and approved by the Medical Profession.

FOOT TROUBLE		PRICE		FOOT TROUBLE		PRICE	
AID TO FOOT COMFORT		Wholesale	Retail	AID TO FOOT COMFORT		Wholesale	Retail
CORN ..	Dr. Scholl's Corn ZINO PADS with Medicated Disks	11/3 per doz.	1/3 per pkt.	HOT, PERSPIRING FEET.	Dr. Scholl's FOOT POWDER —cooling and soothing. Small and Large size.	4/-, 12/6 per doz.	6d., 1 each
	Dr. Scholl's Corn TARSO PADS —recommended in cases where customer has sensitive skin. No medication.	4/- per doz.	6d. per pkt.		Dr. Scholl's KOOL FOOT Arch Rest —impregnated with Boric—for low-heeled rubber shoes. Men's and women's sizes.	12/- doz. pairs	1/6 per pair
	Dr. Scholl's FIXO PLASTERS —for corns of long duration and which have become hard. Small, Large.	7/6, 12/- per doz.	9d., 1/3 per pkt.		Dr. Scholl's BORIC IN-SOLES —cooling and soothing for summer wear.	42/- per gross pairs	6d. per pair
CORN— BETWEEN TOES.	Dr. Scholl's FELT CORN PADS —for thin and parchment-like skin.	4/- per doz.	6d. per pkt.	ACHING, SWOLLEN FEET.	Dr. Scholl's PEDOKUBES —Small and Large.	8/3, 16/6 per doz.	1/-, 2 each
	Dr. Scholl's "2" DROP CORN REMEDY for corns which cover only a small area.	11/3 per doz.	1/3 each		Dr. Scholl's FOOT SOAP	12/6 doz.	1/6 per pair
	Dr. Scholl's CORN SALVE for hard, deep-seated corns.	11/3 per doz.	1/3 each		Dr. Scholl's "3" NECESSITIES —Foot Cream—Foot Powder—Foot Soap—Combination Set.	37/6 per doz.	4/6 each
BUNIONS ..	Dr. Scholl's Soft Corn ZINO PADS special size and shape, with Medicated Disks.	11/3 per doz.	1/3 per pkt.	TIRED, TENDER FEET.	Dr. Scholl's MASSAGE CREAM —also for Bunions, Chilblains and Skin Disorders. Small and Large sizes.	4/-, 18/- per doz.	6d., 2 each
	Dr. Scholl's Soft Corn TARSO PADS special size and shape, recommended in cases where customer has sensitive skin. No Medication.	4/- per doz.	6d. per pkt.		Dr. Scholl's BATH SALTS —deodorising and cleansing. Supercharged with Oxygen. Small and Large.	4/-, 12/- per doz.	6d., 1 per pair
	Dr. Scholl's Bunion ZINO PADS Special size and shape. Medicated Disks.	11/3 per doz.	1/3 per pkt.		Dr. Scholl's WALK STRATES.	8/6 per doz. pairs	1/- per pair
CALLOUSES ..	Dr. Scholl's Bunion TARSO PADS —special size and shape—recommended in cases where customer has sensitive skin. No Medication.	4/- per doz.	6d. per pkt.	TURNED OVER ANKLES.	Dr. Scholl's HEEL STRATES.	4/- per doz.	6d. per pair
	Dr. Scholl's FELT BUNION PADS , for thin and parchment-like skin.	4/- per doz.	6d. per pkt.		Dr. Scholl's HEEL TREAD CUSHIONS —extends farther into shank of shoe.	12/6 per doz.	1/6 per pair
	Dr. Scholl's BUNION REDUCER in cases where joint is not rigid.	20/- per doz.	2/6 each		Dr. Scholl's EASY FEET HEEL CUSHIONS —for low-heeled shoes.	10/6 per doz.	1/3 per pair
CALLOUSES ..	Dr. Scholl's BUNION PROTECTOR (Leather)—cases where joint not rigid—wool padding inside.	24/- per doz.	3/6 each	SHOE SLIPPING.	Dr. Scholl's HEEL PILLO CUSHIONS.	4/- per doz.	6d. per pair
	Dr. Scholl's TOE FLEX for straightening big toe, where joint is not rigid. Should be worn during the day.	16/- per doz.	2/- each		Dr. Scholl's HEEL SNUGGERS —attached to shoe.	4/- per doz.	6d. per pair
	Dr. Scholl's BUNION LOTION —for relief of pain—to be used in conjunction with a Bunion Corrective, e.g., Bunion Reducer.	11/3 per doz.	1/3 each		Dr. Scholl's STOCKING PROTECTORS —f. the heel.	4/- per doz.	6d. per pair
CALLOUSES ..	Dr. Scholl's WENAL OINTMENT for especially stiff and painful joints, in conjunction with Bunion Corrective.	11/3 per doz.	1/3 each	SPREADING FEET.	Dr. Scholl's ARCH BINDERS —mild cases of foot strain. 2 1/2" and 3 1/2" widths.	20/-, 27/- per doz.	2/6, 3 per pair
	Dr. Scholl's BUNION SPRING for cases of rigid joints—worn at night, Toe Flex during the day.	66/- per doz.	8/6 each		Dr. Scholl's LASTIK METAPADS —to provide a mild correction to anterior metatarsal arch.	42/- per doz.	5/6 per pair
	Dr. Scholl's Callous ZINO PADS —special size and shape with Medicated Disks.	11/3 per doz.	1/3 per pkt.		Dr. Scholl's TOE RIGHT	7/6 doz.	1/- each
CALLOUSES ..	Dr. Scholl's CALLOUS TARSO PADS —special size and shape—recommended in cases where customer has sensitive skin. No Medication.	4/- per doz.	6d. per pkt.	CROOKED TOES. INGROWN TOE NAILS.	Dr. Scholl's ONIXOL —relieves irritation and inflammation.	11/3 per doz.	1/3 each
	Dr. Scholl's CALLOUS SALVE —a strong preparation for large masses of hard skin on the plantar surface of the foot.	11/3 per doz.	1/3 each		Dr. Scholl's SOLVEX	26/- doz.	3/- each
					Dr. Scholl's CHILBLAIN LOTION.	11/3 per doz.	1/3 each
CALLOUSES ..				ITCHING TOES CHILBLAINS..	Dr. Scholl's LIGTONE ..	26/- doz.	3/- each
					Dr. Scholl's "6" AIDS Combination Set of Tarso Pads, Bath Salts, Foot Powder, Adhesive Felt, Lamb's Wool, Adhesive Stockinette.	4/6 per doz.	6d. per pair
					Dr. Scholl's BROMIDROSIAL POWDER.	18/- per doz.	2/6 each
CALLOUSES ..				FOOT SPRAIN. COMPLETE KIT FOR HOME TREATMENT.	Dr. Scholl's CAPSICUM INSOLES.	33/- gross pairs	4/6 per pair
					Dr. Scholl's WARM FOOT Arch Rest impregnated with Capsicum.	12/- per doz.	1/6 per pair
					Dr. Scholl's Rubberless Patented Superfine CORRECTIVE HOSIERY for swollen and tired legs and ankles. Two qualities.	14/-, 10/- per pair	22/6, 10/- per pair
CALLOUSES ..				EXCESSIVE PERSPIRATION COLD FEET ..	Dr. Scholl's CHIROPODY FELT.	4/- per doz.	6d. per pair
					Dr. Scholl's CHIROPODY STOCKINETTE.	4/- per doz.	6d. per pair
					Dr. Scholl's CHIROPODY MOLESKIN.	4/- per doz.	6d. per pair
CALLOUSES ..				VARICOSE VEINS.	Dr. Scholl's CHIROPODY ANIMAL WOOL.	4/- per doz.	6d. per pair



The STANDARD Remedy **for HAY FEVER**

Hay Fever is now rife and its victims in serious need of the certain relief of EPHEDROL. Infinitely better, *safer* and easier to use than a spray or pipette, EPHEDROL can be carried in the pocket without fear of leakage. It is wonderfully convenient, wholly effective and endorsed by many leading laryngologists. The patent nasal application bottle makes it impossible for the mucus to contaminate the solution. Almost instant relief is obtained.

EPHEDROL

BRAND

Also effective for
SUMMER COLDS and CATARRH

The most profitable single line for the Chemist—78% on Cost

Good display material, including a special window display of grass or hay, available on request.

PRICES: 3/- size 23/- per dozen; 3 dozen lots 22/- per dozen; 1/6 size 12/- per dozen; 3 dozen lots 11/- per dozen. 1 Bonus to 12 either size. Carriage paid on 3 dozen lots.

CLAY & ABRAHAM Ltd., Manufacturing Chemists, LIVERPOOL, 1
London Agents: Thomas & Linton, Ltd., 4 Gray's Inn Road, W.C.1

C.F. 34

See that you hold Stocks
of this
Safe & reliable Family Remedy

ESTABLISHED OVER 80 YEARS
AND STILL IN UNIVERSAL DEMAND

Dr. J. Collis Browne's
CHLORODYNE

ORIGINAL AND ONLY GENUINE

80 YEARS'
WORLD-WIDE
REPUTATION

Please order from your Wholesaler with
other goods

Sole Proprietors:

J. T. DAVENPORT LTD.
UNION STREET, LONDON, S.E.1

SOLD ONLY
THROUGH
CHEMISTS
SIZES 1/3, 3/-

'OPOCRIN' Brand Products

*regularly advertised to the Medical Profession***HYPOTENSYL**For the treatment of all conditions
associated with **HIGH BLOOD PRESSURE**

	Retail	Wholesale
Bottle of 50 Tablets	4/-	3/-
" " 500 "	36/-	27/-

IODOBESINA safe and useful adjunct in
the treatment of **OBESITY**

	5/-	4/-
Bottle of 60 Tablets	36/-	28/6
" " 500 "		

MYCOLACTINEA physiological laxative for bowel
education and intestinal disinfection

	2/9	2/-
Bottle of 50 Tablets	25/-	17/6
" " 500 "		

Your co-operation in promptly obtaining
supplies when required will be appreciated
Telephone : Holb. 6011. Telegrams : Ampsalvas, London

THE ANGLO-FRENCH DRUG CO., LTD.
11-12 Guilford Street, London, W.C.1

CHEMISTS AND DRUGGISTS

are generally agreed that it is the quality merchandise that
produces the turnover, the profits and the satisfied customers.
Antiphlogistine Brand Dressing is a good example of a quality
product. Backed by ethical advertising, secure in the good-
will of the physician, it assures a steady profit to the pharmacist.

FEATURE IT—IT IS A GOOD TRADE BUILDER**ANTIPHLOGISTINE***BRAND DRESSING***INFLAMMATION'S ANTIDOTE***for*

SPRAINS
BURNS AND SCALDS
EXTERNAL POISONING
SWOLLEN GLANDS

STRAINS
WOUNDS
BOILS
BITES

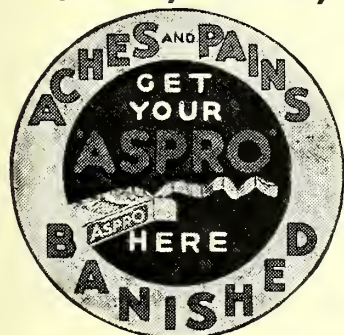
*Write for special quantity terms.***THE DENVER CHEMICAL MFG. CO.,****CARLISLE ROAD, LONDON, N.W. 9****Telephone : Colindale 6701**

THIS DISPLAY SELLS 'ASPRO'



& BRINGS CUSTOMERS INTO YOUR SHOP

The window display illustrated above definitely sells 'ASPRO'. It connects up with the largest advertising campaign of its kind in the world. When you display it, you get the benefit of 'ASPRO' advertising just as though you paid for the advertisements yourself—the non-displayer loses customers and loses profit. The present change of the weather conditions is causing a great demand for 'ASPRO'. We suggest, therefore, that if you have an 'ASPRO' display you show it. If you have not one—then write us to-day, and we will send the above set by return of post. Do not forget, either, the 'ASPRO' service of Chemists' envelopes and bags. They are good business pullers—they save you money. Let us assure you here that our sales activities are being vigorously pushed. House-to-house broadsheeting is in operation, backed by heavy national advertising. We advertise 'ASPRO' continuously. If you keep on displaying 'ASPRO' advertising material, 'ASPRO' customers will keep on coming to you.



AN 'ASPRO' WINDOW STICKER

'ASPRO' consists of the purest Acetylsalicylic Acid that has ever been known to Medical Science, and its claims are based on its superiority.

Agents: GOLLIN & CO. Pty. Ltd.

('ASPRO' DEPT.)

SLOUGH, BUCKS.

Phone: Slough 608

Made by ASPRO LTD., SLOUGH, England

No proprietary right is claimed in the method of manufacture or the formula.



HAY FEVER TIME



SELL

BESORBON

AND REAP THE PROFIT!

At hay fever time BESORBON is a real profit maker. And not only for hay fever, but for colds and catarrh as well. Display the BESORBON container on your counter. Display BESORBON in your windows. Customers are coming in—so keep it right in front!

*From all wholesalers or direct.
Trade terms
11 1/3 per dozen.*

KEMSALES LIMITED
20 EASTCHEAP, E.C.3

A PROFIT OF 50% ON

Iglodine

an all British, safe antiseptic and pure drug—Tri-Iodo-Ethyl-Phenyl—which is an important factor in commercial welfare. In the performance of their various missions Iglodine preparations are particularly effective. The merits of Iglodine preparations are now fully established. There is a steady all-the-year-round demand for them from Industrial concerns, Workshops and Homes. They are, therefore, worth-while lines to stock, and are worthy of display and recommendation. Furthermore, our terms show you A PROFIT OF 50 PER CENT.

"IGLODINE" Specialities
(On the P.A.T.A.)

ANTISEPTIC
EMBROCATION
TOILET SOAP
OINTMENT
PASTILLES
THROAT TABLETS
CREAM
SHAVING STICK
NASAL DOUCHE
SUPPOSITORIES
SALICYLATED and
FIRST AID OUTFITS
"IGLO"
VETERINARY
PREPARATIONS

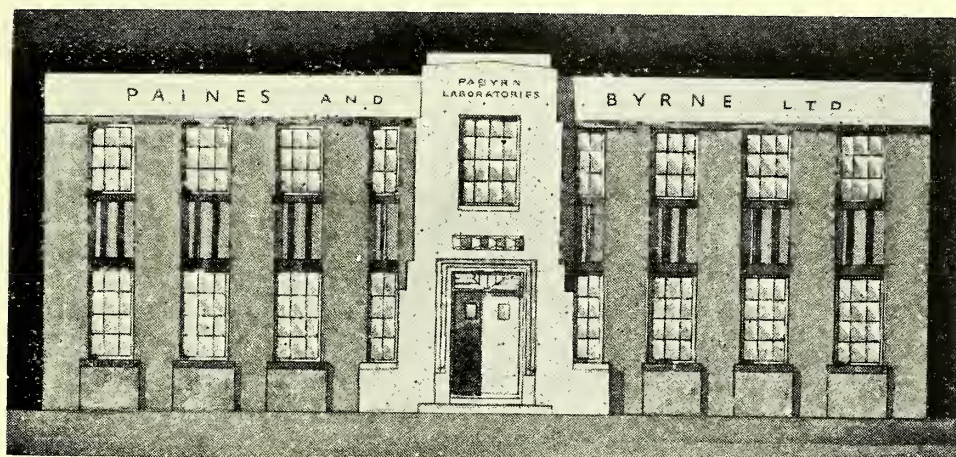
Showcards and advertising literature gladly sent on application. Write us today for details of Special Window Display offer.

The Iglodine Co.
LIMITED
PILGRIM STREET
NEWCASTLE-ON-TYNE

Phone : 22744
Newcastle-on-Tyne.

Telegrams :
"IGLODINE," Newcastle-on-Tyne.

*Engaged Solely in the supply of
Glandular Products*



PAINES & BYRNE Ltd.

are Specialists in the manufacture and supply of all Medicinal
Preparations of Animal Origin and Isolated Hormones

Desiccated Gland Substances
Glandular Liquors for Oral Use
Glandular Hypodermic Solutions
Glandular Extracts
Glandular Tablets and Capsules
Digestive Ferments, Peptones, Haemoglobin
"Pabyrn" Plurigland Tablets

Quotations and Information from :

PABYRN LABORATORIES
PERIVALE, GREENFORD, Middlesex

Telephones : PERIVALE 1143—4

Telegrams : GLANDS. GREENFORD

Products of — BENGER'S FOOD Ltd.

BENGER'S FOOD for INFANTS, INVALIDS and the AGED.

Has been used for over forty years with great success.

The "Lancet" describes it as "Mr. Benger's admirable preparation."

LIQUOR PEPTICUS (Benger).

An exceedingly active fluid pepsine. Dose, one or two teaspoonfuls with meals. In 4, 8 and 16 oz. bottles.

BENGER'S PEPTONISING POWDERS.

Half a powder will peptonise a pint of milk, gruel, beef tea, etc., in a few minutes. In boxes of 6 and 12 powders.

BENGER'S PEPTONISED BEEF AND CHICKEN JELLIES.

Nutritive delicacies for Invalids. In glass jars.

LIQUOR PANCREATICUS (Benger).

Containing all the active principles of the fresh pancreas. Used to prepare peptonised or partially digested milk and other articles of food.

'EXTOMAK' (Trade Mark).

An active and natural desiccated stomach product, preferable in all respects to Liver Extracts. Supplied in tins of two sizes No. 1 and No. 2.

BENGER'S PANCREATISED LENTIL FLOUR.

Can be used in the same way as Benger's Food, for which it may be substituted when a change of diet is desirable.

BENGER'S ESSENCE OF RENNIN (Curdling Fluid).

The highest quality sweet essence, which can be safely used for obtaining whey for professional use in Infant and Invalid Feeding. Makes excellent Junket. In bottles of various sizes.

PEPSIN PILLS (Benger).

Represent the active principle of the Liquor Pepticus in the form of tasteless coated pills in convenient and effectual form. In bottles of various sizes.

PANCREATIN PILLS (Benger).

Contain the purified digestive principles of the fresh Pancreas, and are coated with Keratin to protect them from the solvent action of the gastric juice, until they reach the duodenum, where they will rapidly dissolve. In bottles.

EXTRACT OF RED MARROW.

An agent capable of affording valuable aid in the treatment of Anæmia, and also of Oligæmia due to loss of blood.

LIQUOR THYROIDIN.

A glycerine and water extract of selected fresh Thyroid glands obtained from healthy sheep.

NEW PRODUCT

BENGER'S FOOD BISCUITS. Contain a suitable quantity of Benger's Food as prepared with fresh milk, and provide a sustaining food-stuff having distinctive digestive properties. In tins at 1/9 each.

Of all Wholesale Houses and Shippers, or from the Manufacturers,

BENGER'S FOOD LTD., Otter Works, MANCHESTER

NEW YORK, U.S.A. 41 Maiden Lane. SYDNEY, N.S.W. 350 George Street.
CAPE TOWN, S.A. P.O. Box 732



We manufacture and pack
Every description of Medicinal
and Toilet Preparations for the

HOME and EXPORT DRUG TRADE

including

DRUGS,
CHEMICALS,
GALENICALS,
TABLETS AND PILLS,
PACKED GOODS,
SUNDRIES,
SURGICAL DRESSINGS,
etc., etc.

ENQUIRIES INVITED

from Export and Indent Houses

● We specialise in the preparation and packing of
Chemists' specialities to Customer's own formula
and style, and in matching any sample supplied ●

BROOK, PARKER & Co., LTD.

Manufacturers of High Class Specialities for the Home and Export Drug Trade

ASHFIELD - HORTON ROAD - BRADFORD

Telephone: BRADFORD 8237, 8238, 8239

Telegrams: 'BROPARCO,' BRADFORD.

Every Bengué Speciality excels



DR. BENGUE'S BALM

Gives almost instant relief in cases of Rheumatism, Neuralgia, Lumbago, &c.

AGOCHOLINE

Combination of Magnesium Sulphate and Meat Peptone, used as a cholagogue and also cholecysto-kinetic

PASSIORINE

Fluid extract of Passiflora Incarnata, circulatory and nerve sedative. A non-toxic preparation

OPOCALCIUM

A remineralising agent composed of mineral salts and gland extracts. Recommended for Tuberculosis, Rickets, &c.



BENGUE & CO LTD

24 FITZROY STREET, LONDON, W.1

PHONE: MUSEUM 8608-9

GRAMS: "ANESTILE, LONDON"

'SURE SHIELD' SUMMER LINES

GRAPE FRUIT CITRATE

A REFRESHING TONIC
AND
SALINE APERIENT

4 oz. Bottles, 7/-
per doz. 1/4 per
lb., 28 lbs., 1/3
per lb.



OF
OUTSTANDING
QUALITY &
POPULARITY

GRAPE FRUIT PASTILLES



THOS. GUEST & Co. Ltd.

CARRUTHERS ST., ANCOATS, MANCHESTER 4

LONDON DEPOT:

15-16 JEWRY STREET, E.C.3 Phone: Royal 8111

4 lb. Free Jars, 1/7 per lb. 7 lb. Free Jars,
1/6 per lb. 2d. pkts. (2 doz. Outers), 1/5
per doz., 16/- per gross. 4 oz. Cellophane
packets, 4/3 per doz., 48/- per gross.

Ex-Lax brand
perfect laxative—
No griping.
Kiddies love
it. Relief.
Box from your chemist

Don't forget—remember
EX-LAX

YOUR CHEMIST 2^o 6^o 1^o3

POUNDS COULD
NOTHING MORE
EASIER THAN 'EX-LAX'.
A 62 years of age and have been

itsen. purgatives that
You want REAL 'EX-LAX'
tive that will move your bowels—
that will cleanse your system
thoroughly, that will give you smooth,
easy yet really magnificent relief! Well,
your chemist has it—the REAL THING!
Make sure you get it.

When nature forgets—
remember
EX-LAX

YOUR CHEMIST 2^o 6^o & 1^o3

'EX-LAX' FROM YOUR CHEMIST 2^o 6^o & 1^o3

J, TOO, WILL HAVE
GOOD RELIEF!

You may think you're different. You
think you're unusual. So did
others—till they took 'Ex-Lax'. Then
they found out their mistake. For they
found decisive, substantial and splendid
relief—just as you will. Many had had

little girl is a bit upset, she is soon put
right again after taking 'Ex-Lax'—it
is very smooth.

EX-LAX BRAND

GET 'EX-LAX' FROM YOUR CHEMIST 2^o 6^o & 1^o3

More than
11,000,000
advertisements each week say
GET 'EX-LAX' FROM YOUR CHEMIST

CASH REGISTERS "NATIONAL" etc.

All kinds — Total Adders, Ticket Issuers, Printers, etc.
BOUGHT — SOLD — EXCHANGED
REPAIRED (Estimates Free), Easy Terms

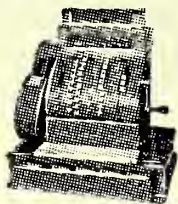
DEICHES
(Established 30 Years)

78 LONG LANE, SMITHFIE. D, E.C.1
Phone: National, 0674

REAL BARGAINS (almost New
and Re-conditioned)

Fully guaranteed — over 100 Cash
Registers to choose from. Write or
Call and See for Yourself.

"It's Cheaper and Better at
DEICHES."



"CLEMENTS - NEWLING" for DISPLAY STANDS

No. 2824 Chromium Plated Pedestal

each doz. "CLEMENTS" DISPLAY
STANDS ARE USED
IN THE CHEMIST &
DRUGGIST MODEL
WINDOW DISPLAY

(See Editorial Pages)

Fittings List Free. Carriage Paid England & Wales
on orders of 5/- and over

LARGE STOCK of GLASS OVALS & CIRCLES

CLEMENTS, NEWLING
& Company Ltd.

Showrooms:

95 & 96 Wood Street, London, E.C.2
NAT. 5511 (5 lines)



JONES for METHYLATED SPIRIT

ALL STRENGTHS IN STOCK
PROMPT DELIVERIES IN CASKS,
DRUMS OR TANK LORRY

Send your enquiries to

JONES & CO. (METHYLATORS) Ltd., Bow, London, E.3

Telegrams: "Methspirit, London."

Telephone: Advance 3210 (2 lines)

Just to remind you

that it is inadvisable to place orders for next season's Malt Extract and Cod Liver Oil until you have had samples and prices of

Butterscotch

BRAND

Malt Extract & Cod Liver Oil

- In bulk or packed. Wholesale, Retail, Home and Export.
- A full range of attractive "own Name" Labels is available.
- Liberal display material and price tickets.
- All worry is avoided when you stock "Butterscotch" brand Malt Extract and Cod Liver Oil.

It has a unique flavour — customers like it — and speedily builds up a valuable trade. We will gladly send you samples and details on request.

The Brand that gives satisfaction made by the firm that gives real service

C. TOLKIEN & Co. Ltd.

REMOGEN WORKS - SILSDEN - YORKS.

LONDON: 461a CALEDONIAN ROAD, N.7. Phone: North 5047.
BIRMINGHAM, 11 GOTHIC ARCADE, SNOW HILL, BIRMINGHAM, 4. Phone: Central 1159.

INSTITUTE OF HYGIENE
INCORPORATED BY
ROYAL CHARTER



DORSELLA MILK FOOD

ENGLISH DRIED MILK

Enquiries are solicited for the following:

FULL CREAM "DORSELLA" DRIED MILK

HALF CREAM SEPARATED "PARAGON" CASUMEN, SOLUBLE MILK

PROTEID SWEETWHEY, CRYSTALS or POWDER

KENCREAM FOR PUPPIES UNITA (Dorsella and Casumen) DRIED BUTTERMILK

Supplied in Bulk, Tins or Cartons

Quotations and samples gladly sent on request.

PRIDEAUX'S, LTD.,
MOTCOMBE, SHAFTESBURY, DORSET

Telephone: Shaftesbury 4

THE **DEE OIL** CO. LTD.

DELTA WORKS, BOOTLE, LIVERPOOL
Phone: Bootle 1897 Wires: "Cestrian, L'pool"

London Office: Unicus House, 55 Southwark St., London, S.E.1
Phone: Hop 0094 (3 lines)

Petroleum Jellies
White Bases
White Oils

Technical & B.P. Qualities

OLEUM DEELINAE

For Skin Diseases

Used by Doctors & Hydropathic Institutions for over 50 years.



The only Reducing Medium which is guaranteed to contain **NOTHING** but vegetables. Not ingredients of "vegetable origin" which may easily be dangerous extracts of one sort or another—but the actual natural vegetables listed on each carton. About 500,000 capsules of this popular Reducing Food are sold monthly. A sure sign of their efficacy. If you do not already know about this excellent selling line, please send a P.C. for full particulars.

The Natex Bonus Parcel Shows a Profit of 75% — on outlay

THE BONUS OFFER

7 Cartons of Natex Foods for the price of 6.

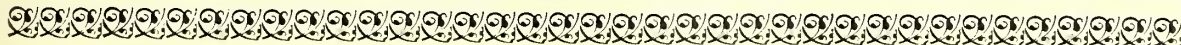
TO OBTAIN THE BONUS

Order in half-dozens of any single size

Apart from the well known and quick selling NATEX REDUCING FOOD (No. 5) the Natex Range includes several popular foods for other purposes. These may be included to make a mixed parcel, if desired, in which case please state which food you wish for the Bonus Carton. Bonus Parcels may be charged through your usual wholesaler.

MODERN HEALTH PRODUCTS LIMITED

298 NATEX HOUSE, 38 LANGHAM STREET, LONDON, W.1



TRY MASON'S

EXTRACT OF HERBS

ALLOWANCES
10/- and 5/-



WINDOW DISPLAY
AT OUR EXPENSE

To those customers who will allow us the use of their window we offer 5/- for their opening order for 6 dozen (or 10/- for 12 dozen). The window display is most attractive and perfectly simple and can be fixed up in a couple of minutes.

Apply:

NEWBALL & MASON, LTD., NOTTINGHAM

FINEST PURE LOFOTEN

COD LIVER OIL

(NEW SEASONS)

BRÖDR AARSÆTHER A/S
AALESUND, NORWAY

VETERINARY COD LIVER OIL A SPECIALITY

SOLE AGENTS FOR U.K. (EXCEPTING SCOTLAND)

Freudentheil, Smith & Co.,

ESTABLISHED 1826

21 MINCING LANE, LONDON, E.C.3

Tel. Add.: "Freudenruf" Tel. No.: Mansion House 6600

STOCKS HELD IN LONDON

AGENT FOR SCOTLAND: ANDREW STEVEN & SON, GLASGOW

HALIBUT LIVER OIL

PURE HALIBUT LIVER OIL, CAPSULES AND EMULSION

We offer genuine Halibut Liver Oil of high vitamin potency, also Halibut Liver Oil Capsules and Emulsion. Ask for samples and prices.

ROBERT BARKER & SON, LTD.

ESTABLISHED 1793.

The Best and
Safest Infants'
Medicine of
over 140 years'
standing.

ATKINSON & BARKER'S
INFANTS' PRESERVATIVE

Does not
contain
any
Scheduled
Poison.

ROBERT BARKER & SON, LTD., 13 WESLEY STREET, C. on M., MANCHESTER

DCL

YEAST *for medical use*

in tablet form

60 Tabs. 1s. 6d.
120 Tabs. 2s. 6d.

CARRIAGE PAID

This preparation is recommended for the treatment of all skin eruptions, and also for improving the condition of the blood.

Should retailers experience any difficulties in getting supplies through usual channels send a postcard to the manufacturers.



RETAILERS' DISCOUNT $33\frac{1}{3}\%$
WHOLESALE " $16\frac{2}{3}\%$

The
DISTILLERS COMPANY LTD
EDINBURGH



Write for free
samples and full par-
ticulars to:—

RESTORATIVE TONICS WORTHY OF RECOMMENDATION

EGG-NOG

THE SUPREME WINE & EGG RESTORATIVE

This is a new—and different—tonic wine highly recommended by the medical profession. Scientifically prepared from matured wine, fresh eggs, etc. This line may be sold by all licensed Chemists.

"SUNRAY"

(VIN FERRI CIT)

TONIC BLOOD WINE.

Invigorating—sustaining—body building. A splendid new iron tonic, highly recommended in cases of Anæmia, Debility, and for all convalescences. A pleasing and easy way of assimilating the valuable properties of iron. **THIS TONIC CAN BE SOLD BY ALL CHEMISTS**
—LICENSED OR UNLICENSED.



LAMB & WATT, LTD., LIVERPOOL, 3.

SCOTLAND—J. C. RENNIE & CO.,
208, BOTHWELL STREET, GLASGOW.

WINES

We specialise in . . .

B.P. ORANGE
VINUM FERRI CITRATIS
BRITISH SHERRY

Write for samples and quotations

MELROSE-DROVER, LIMITED, Wine Makers LEITH

Established over Half a Century

London Office: 24/6 Monument St., E.C.3

JUST A REMINDER THAT H.B.T.

SOAPS—TOILET & MEDICAL PRODUCTS

ARE STOCKED IN NORTHERN IRELAND BY
MESSRS. SHAW & JAMISON LTD., AND
MESSRS. THOMAS McMULLAN & CO. LTD.
and

may be had through all Wholesale Houses in
Scotland and England. Messrs. Robert Blackie,
Butcher Curnow & Co., and others hold representa-
tive stocks, a full range of which will be displayed
at the forthcoming Chemists Exhibition in London.

H.B.T. MEDICAL AND TOILET PRODUCTS,
25, Monteith Row, Glasgow, S.E.

Wholesale Warehouse: 2, Morris Place, Glasgow, S.E.
B.C.M./H.B.T. LONDON, W.C.1.



ISCO BRAND

FINEST NON-FREEZING MEDICINAL COD LIVER OIL

SELECTED AND SPECIALLY GRADED HIGH VITAMIN TEST

Buy British

BIOLOGICALLY TESTED

Samples and quotations on request

Isaac Spencer & Co. (ABERDEEN) Ltd.

ALBERT QUAY, ABERDEEN, SCOTLAND



**IN THE 90's—
a promising starter**

TO-DAY—

**selling
the world over**

Starting 40 years ago with a purely local reputation, Box's Pills have built up world-wide sales—and with little advertising.

A line of such vitality would soon show a profit on YOUR counter!

BOX'S PILLS

**THE FAMILY REMEDY
FOR INDIGESTION**

Supplies of Box's Pills are obtainable through your usual Wholesaler.
Compelling window display and counter material free on request—
direct from

● **W. H. BOX** ●

161 KING STREET, PLYMOUTH



For the complexion

These Yeast Tablets may now be obtained in the following sizes

1 doz.	50 Tablets
1 "	100 "
2 "	50 "
50 Tablets 7 ^d .	100 Tablets 1/-

Discounts: Retail $33\frac{1}{3}\%$. Wholesale $16\frac{2}{3}\%$.
Carriage paid on all orders.

Calder yeast.. tablets

Supplies of Calder Yeast Tablets may be obtained through Wholesalers.

CALDER'S YEAST CO LTD

INVERKIP STREET, GLASGOW, C. 5.

INDISPENSABLE

to all busy dispensers

ALL progressive chemists depend upon the U.G.B. washed and sterilized Bottle service, selecting as desired the Cork Mouth Service, or complete with either metal or Moulded "KORKALITE" Screw Caps. The unique U.G.B. process passes every single bottle through boiling distilled water and dries in super heated filtered air.

Dispensers everywhere have proved this an indispensable, labour-saving and economical proposition.

IMPROVED SERVICE

All screw caps
are now fitted
with
RESISTOL
Faced liners



Packed in Sealed Non-Returnable Standardized Fibre Cartons in the Following Quantities Only.

1 oz.	Packed	2 gross	per case
2 oz.	"	1½	" "
3 oz.	"	1	" "
4 oz.	"	1	" "
6 oz.	"	6 dozen	per case
8 oz.	"	4	" "
10 oz.	"	4	" "
12 oz.	"	4	" "
16 oz.	"	4	" "
20 oz.	"	3	" "

U.G.B.

THE STANDARD MEDICAL
BOTTLE for DISPENSING

UNITED GLASS BOTTLE
MANUFACTURERS • LIMITED

40-43 NORFOLK STREET, STRAND, LONDON, W.C.2

Telephone :
TEMPLE BAR: 6680 (10 lines)

Telegrams :
"Unglaboman, Estrand, London."

NEWCASTLE ZINC OXIDE

B.P. Quality

is made by a distillation process from the purest raw materials obtainable, and conforms to the specifications of the British, American and German Pharmacopoeias.



IT IS SUPPLIED TO PHARMACEUTICAL AND COSMETIC MANUFACTURERS ALL OVER THE WORLD IN QUANTITIES RANGING FROM A FEW POUNDS TO TWENTY-FIVE TON LOTS.



The

NEWCASTLE - UPON - TYNE ZINC OXIDE CO., LIMITED.

BIRTLEY, CO. DURHAM.

Sole Selling Agents:

RALPH NYE, BIDDLE & CO., Boston House,
63-64 New Broad Street, LONDON, E.C. 2.

Telephone Nos.:

SALES OFFICE: London Wal. 5454 (3 lines).

Telegrams:

SALES OFFICE: "Nyledoxyd, 'Phone, London."

HOME AGENTS:

LANCASHIRE—Dunn Brothers Successors Ltd., 1 Booth Street, Albert Square, Manchester, 2.

SCOTLAND—A. G. Paterson & Co., 166 Buchanan Street, Glasgow, C. 1.

DOMINION AGENTS:

CANADA—Harrisons & Crosfield, Ltd., Coristine Buildings, Montreal, P.Q.

SOUTH AFRICA—Tauber & Corssen (Pty.) Ltd., 32 Rilbeck Street, Capetown, also at Durban.

"CLARKES"

Brand

World-famed Blood-purifying Medicine

"BLOOD MIXTURE"

Registered Trade Mark

UNSTAMPED, FOR SALE BY CHEMISTS ONLY

P.A.T.A. PRICES

"CLARKES" Brand BLOOD MIXTURE
(Liquid and Tablets)

Retail 3/-. 3 doz. lots £4 - 4 - 0 less $3\frac{3}{4}\%$ one month
12 " " £16 - 16 - 0 " $8\frac{3}{4}\%$ " "

CARRIAGE PAID

PACKING FREE

ASSORTED ORDERS

"CLARKES" Brand	Retail	Per Doz.
"BLOOD MIXTURE" (Liquid)	1/9	16/4
" " " "	3/-	28/-
" " " "	12/-	112/-
"BLOOD MIXTURE" (Tablets)	1/9	16/4
" " " "	3/-	28/-
" " " "	5/-	46/8
SKIN LOTION	1/3	11/8
SALVE	1/3	11/8
" " " " " "	3/-	28/-
" " " " " "	5/-	46/8
APERIENT PILLS	1/3	11/8
" " " " " "	3/-	28/-
MEDICATED SOAP		Doz. Tablets
Box 3 Tablets	2/6	7/10
Single Tablets	1/-	

Orders may be assorted as desired at above rates provided they reach minimum values, as follows:—

£4 - 4 - 0 less $3\frac{3}{4}\%$ one month

£16 - 16 - 0 " $8\frac{3}{4}\%$ " "

CARRIAGE PAID PACKING FREE

ORDERS may be sent direct or through the usual wholesale houses.

**The Lincoln & Midland Counties Drug
COMPANY, LIMITED**

PARK STREET, LINCOLN

Telegrams: "Lindum, Lincoln." Telephone: Lincoln 55

British fine chemicals

We are specialists in supplying the exact quality, finish and pack suited to individual customer's needs. The extra purity of Monsanto fine Chemicals, made in our own works at Ruabon, N. Wales, enables us to do this at keenly competitive prices. Why not ring VICTORIA 1535 and discuss your own requirements?

SALICYLIC ACID B.P.

Crystals or Powder

SODIUM SALICYLATE B.P.

Powder or Flake

ACETYL SALICYLIC ACID B.P.

"Aspirgran" or Powder

METHYL SALICYLATE B.P.

PHENACETIN B.P. *Crystals or Powder*

PHENOLPHTHALEIN B.P.

MONSANTO CHEMICALS LIMITED
VICTORIA STATION HOUSE, VICTORIA STREET, LONDON, S.W.1

Works : Ruabon, North
Wales, and Sunderland

TELEPHONE : Northern Sales Office : King's House,
VICTORIA 1535 King Street West, Manchester

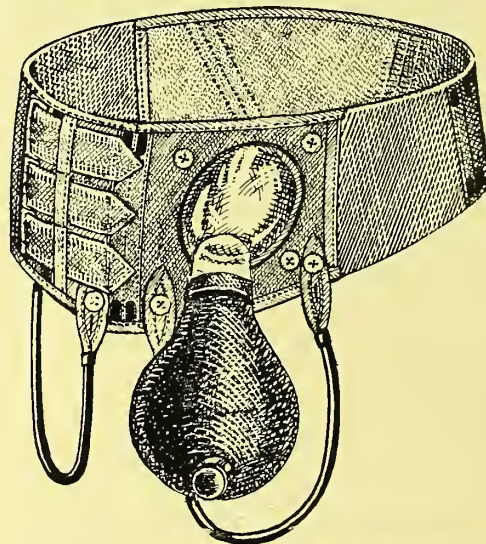
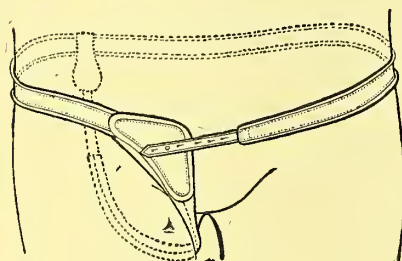
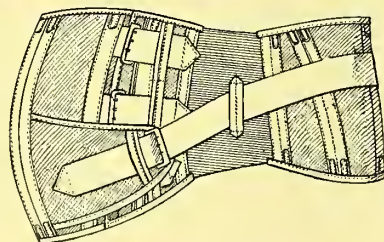
MONSANTO SERVICE

HEWARDS

★ Made in London of
British Materials and Labour

OF TWICKENHAM FOR ALL YOUR REQUIREMENTS IN SURGICAL APPLIANCES

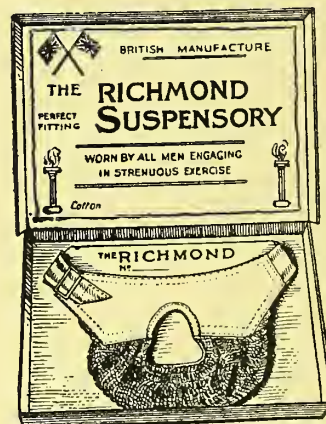
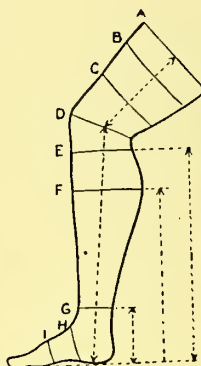
ABDOMINAL & SUPPORTING BELTS, SPRING AND
ELASTIC TRUSSES, ELASTIC HOSIERY, SUSPENSORY
BANDAGES, ELASTIC BANDAGES, HOT WATER BOTTLES



Sole concessionaires for the
British Empire for the re-
nowned

CRÊPE VELPEAU BANDAGES

Special Orders for Trusses,
Abdominal Belts, etc., des-
patched same day as received



WRITE FOR ILLUSTRATED CATALOGUE AND PRICE LIST TO

THE R. H. HEWARD CO.

CROWN RD. WORKS, TWICKENHAM, MIDDX.

PHONE : POPESGROVE 2094 GRAMS : "BELTRUSS, TWICKENHAM"



ADVERTISED BY

There is no need for us to introduce this group of some of your old friends—these quick-selling Ilford photographic goods that have helped considerably among other things, to solve the problem of carrying big stocks. These familiar lines represent only a fraction of the products that have been made famous—in Great Britain, the Dominions or foreign countries—by Samson Clark Advertising.

If you have an advertising problem, let us look at it together through the lens of our specialised experience. A discussion might help both of us.

SAMSON CLARKS

SAMSON CLARK & CO. LTD., Incorporated Practitioners in Advertising, 57-61 Mortimer St., LONDON, W.1

FOR BIG BUSINESS

STOCK

BEECHAM PRODUCTS



BEECHAM PRODUCTS have attained their present popularity through MERIT. Every Chemist and Druggist should participate in the ever increasing demand for BEECHAMS Brand PILLS, BEECHAMS Brand POWDERS and BEECHAMS Brand LUNG SYRUP. They amply repay any selling co-operation extended to them.

BEECHAM PRODUCTS never become dead stock—there are no losses on them—all damaged stock is replaced free—they are protected under P.A.T.A. regulations—yield good profits and are the best paying propositions to handle.

**STOCK MORE—
SHOW MORE—
SELL MORE—
BEECHAM
PRODUCTS**

SHOW MATERIAL
SENT ON
REQUEST

**BEECHAMS PILLS LTD.
ST. HELENS, LANCs.**

THE SOURCE OF ANIMAL VIRILITY & FITNESS



is embodied in

JUVIGOLD

BRAND

DUCTLESS GLAND TONIC

P.A.T.A.

3/- 5/- 12/-

27/- 45/- 108/-

The swift, lithe grace of the deer, the power and speed of the panther are lifelong and the reason is simple—every gland of those wonderful bodies is in perfect rhythm. Their glands of internal secretion enable them to meet sudden demands in moments of emergency, give them the energy so constantly needed, make heart, nerves and muscles ready for action—tense and alert—and summon forth all the forces in times of stress.

Man also can have this fitness of the wild—for the pluriglandular product Juvigold, with the mineral substances and catalysts needed to nourish and activate the ductless glands to secrete their hormones, replenishes the human organism with new vigour of muscle and nerve, increases optical, mental, and physical alertness, ensures perfect health and stamina, and gives immunity to bacterial infection.

OF ALL WHOLESALERS OR DIRECT

THE MIDDLESEX LABORATORY OF GLANDULAR RESEARCH LTD.

21 - FARRINGDON AVENUE - LONDON - E.C.4

TELEPHONE: CENTRAL 1901

TELEGRAMS: GLANDOC, LUD, LONDON

PARKINSONS



VITAGRAINS

A pleasant, cooling,
health restoring, **40%** PROFIT
blood purifying

ATTRACTIVELY
PACKED IN
DISPLAY CARTON

SALINE

PILLS

FROM PARKINSONS ARE KNOWN EVERYWHERE
**BLOOD & STOMACH, HEAD & STOMACH, LAXATIVE,
BACK & KIDNEY, LIVER & KIDNEY, LIVER, ETC.**

Show a clear

50% PROFIT

Manufacturing Chemists, **BURNLEY**

A Unique Line!

HARTZ PURE HEALTH SALT

Warranted free from Sickly Sugar and Nauseous Sulphates

Free Running Grains

In square tins, aluminised finish, handsomely decorated

REPEAT SALES AGAIN AND AGAIN ON QUALITY ALONE

$\frac{1}{4}$ -lb. size sells at 8d. and costs 5/- per dozen

$\frac{1}{2}$ -lb. size sells at 1/2d. and costs 9/- per dozen

A SUPPLY OF COUNTER BILLS WITH EACH DOZEN

THINKING OF OINTMENTS?

QUALITY IS THE
THING

"SPUN" IS THE
NAME

that distinguishes the best from all others.

"SPUN" OINTMENTS TEST

by
specifying

when
ordering

"SPUN"

**COLD CREAM
BORIC
OINTMENT
ZINC
OINTMENT
NUT GALL
OINTMENT
GALL and OPIUM
OINTMENT
ETC., ETC.**

May be ordered through:—

Messrs. BUTLER & CRISPE,
80-84 Clerkenwell Road,
London, E.C.1.

Messrs. S. HAYDOCK & CO.,
4-6 Marlborough Street, Belfast.

Mr. G. T. LOYLEY,
Glamorgan House,
Millicent Street, Cardiff.

Messrs. MADDOX
ALEXANDER & CO.,
53 Waterloo Street, Glasgow.

MAY ROBERTS & CO., LTD.,
7-13 Clerkenwell Road, E.C.1.

Messrs. SANGERS LTD.,
258 Euston Road, London,
N.W.1.

Messrs. W. SUTTON & CO.,
Druggists' Sundries,
London—76, Chiswell Street,
London, E.C.1.

Or ORDER DIRECT FROM:

ROBERT BLACKIE

(SOLE MANUFACTURER)

Samples post free.

'Phone: Hop 2422 (Private Exchange).

Shen Works,
Tower Bridge Road,
LONDON, S.E. 1

Telegrams: "Ushenspuna, London."



No. 1

WARDONIA

Best sellers of the razor world.

The famous Wardonia Razors and Blades sell because they satisfy. The Wardonia is the razor of all razors—gets down to the root of the trouble in a quick, quiet way—a comfortable and clean-in-one stroke action. Removes the toughest beard without tugging or irritation. The unique sloping serrations bend the hair side-ways so that the blade cuts with the "barber's diagonal stroke." Wide clearance prevents "pull."

1 The "Pilot" Set comprises razor and 4 blades in bakelite case. Compact and handy for pocket. Variety of colours.

2 The "National" Set comprises razor and 4 blades in smart imitation lizard-skin covered case. Lined throughout with fine sateen.

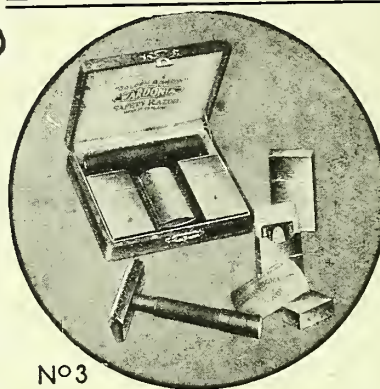
3 The new flat "Golden Arrow" Set comprises Walnut-shade Razor and 10 blades in Gift Containers. Complete in flat compact case.

Wardonia Razors Retail in England from 2/6 to 21/- per set. Generous Trade Terms and Special Prices for Quantities, for both Razors and Blades.

Limited number of agencies available in certain Overseas Markets. Immediate Application Advisable.

Sole Makers—

THOMAS WARD & SONS LTD., WARDONIA WORKS, SHEFFIELD, 1, ENGLAND.



No. 3



No. 2



WARDONIA BARREL - HOLE BLADE

The perfect blade for all 3-peg razors. Satisfied users in all parts of the world write expressing their appreciation of its wonderful shaving powers and long life.

ALUMINIUM CONTAINERS

of distinction

Embossed, Decorated or Plain.
In enamelled, plated and relieved finishes. Advice without charge.
Quotations to your needs. Competitive prices. Prompt delivery.

Screw Caps, containers and metal pressings of all types.

TRAFALGAR WORKS
MERTON, LONDON, S.W.19

'Phone :
Liberty 1144
(5 lines)

Telegrams :
Corfalgar, Wimble,
London

CORFIELD LTD



A NEW LAXATIVE

BY THE MAKERS OF DAISY POWDERS

Chocolate-coated Tablets containing Seven Vegetable Extracts—Dandelion, Rhubarb, Licorice, Cascara Sagrada, Gentian, Aloin, Gingerin

An Excellent Product. Beautifully Packed. Popular Prices. Liberal Profits.
Order through your Wholesaler or direct

DAISYLAX

SEVENFOLD VEGETABLE EXTRACT
LAXATIVES

Trial Size 2d.

Display Cases (3 doz.) at
3/11 each

(Split cases at 1/5 doz.)

Popular Size 6d.

Display Cases (1 doz.) at
3/11 each

(Split cases at 4/3 doz.)

1/3 Size

Display Cases (1 doz.) at
10/- each

(Split cases at 10/6 doz.)

J. E. ELLIS, LTD., HORSFORTH, LEEDS



TRADITION & PRINTING!

YOU cannot build up or create a great tradition on a weak foundation. Nearly sixty years ago the founders of

ALF. HARRISON & SONS LTD.

Chemists' Printers, realised this and made it their business to offer nothing **BUT THE BEST**. That same policy is still pursued — a policy of **SERVICE** and **STRICT ATTENTION** to the requirements of every individual customer.

IT WILL PAY YOU TO SEND US YOUR NEXT PRINTING ENQUIRY

ALF HARRISON & SONS

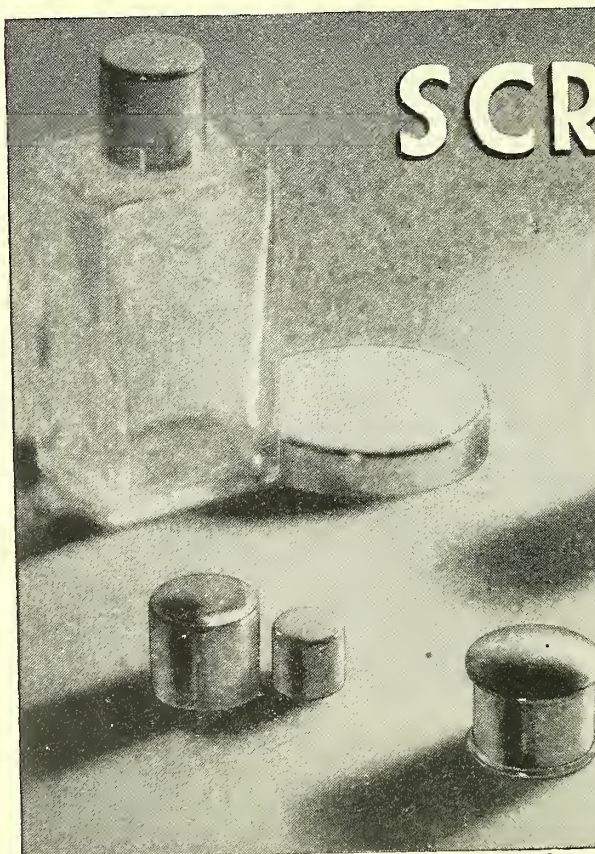
CHEMISTS' AND ADVERTISING PRINTERS

BURLEY ROAD, LEEDS, 4

Telephone:
Headingley 51974

LONDON OFFICE: SENTINEL HOUSE, SOUTHAMPTON ROW, W.C.1

Telegrams:
"Ideas," Leeds
Telephone: Holborn 9200



SCREW CAPS

**WITH CONCEALED THREADS
IN ALL SHAPES AND SIZES**

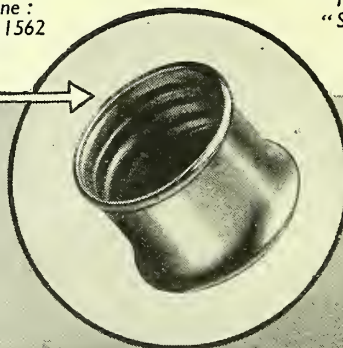
*Supplied in all Metals in
Gilt, Nickel or Enamel for
Face Creams, Lotions, etc.*

Baker Metal Stopper Co. Ltd.

Hadley Street, BIRMINGHAM 18

Telephone:
Northern 1562

Telegrams:
"SCREWCAP,
B'HAM."



First and Foremost among Summer Sellers



Keep the colourful
Selochrome displays
in full view and
get the maximum
business.

THREE OTHER POPULAR SELO FILMS

SELO—The Fast ROLL FILM

The popular film for
all-round snapshotting.

SELO FINE GRAIN PANCHROMATIC ROLL FILM

For crisp enlargements
from miniature negatives.

SELO HYPERSENSITIVE PANCHROMATIC ROLL FILM

The fastest film made.

ILFORD LIMITED - ILFORD - LONDON

BAILLIÈRES BOOKS

TREASE'S TEXTBOOK OF PHARMACOGNOSY

A new work designed to serve as a companion volume to **Bentley's Pharmaceutics** and covering the requirements in pharmacognosy of students reading for pharmaceutical examinations in most English-speaking countries. By **G. E. Trease**, B.Pharm, Ph.C., Lecturer in Pharmacognosy in the University College of Nottingham. Pp. x+654, with 187 illustrations.

"We know of no book containing such a wealth of information between its two covers . . . The student who will carefully ingest the contents of this book will find he can answer any question any examiner on this subject will ever put to him."—*African Chemist and Druggist*.

21s. Postage 9d. Abroad 1s. 3d.

BENTLEY'S TEXTBOOK OF PHARMACEUTICS

THIRD EDITION. By **A. O. Bentley**, Ph.C., Head of the School of Pharmacy and Senior Lecturer in Pharmaceutics at the University College of Nottingham. Pp. x+912, with 254 illustrations and appendix of doses.

"We cannot imagine how any pharmacist or, for that matter, any intelligent retail chemist could be without **Bentley** and still have a clear conscience."—*Manufacturing Chemist*.

15s. Postage 9d. Abroad 1s. 4d.

For further particulars of the above books and of other works on kindred subjects please write to Messrs. **BAILLIÈRE, TINDALL AND COX**, 7 & 8, Henrietta Street, London, W.C.2.



Poor girl, it's not *her* fault! How can you both expect to get your work done like this, with her typing disturbing you and your shouting disturbing her?

It's so easy to have peace and quiet in the office and have work run smoothly and efficiently. Just invest in a Remington Noiseless, Portable or Standard.

A Noiseless Typewriter *presses* the type instead of hammering it. It banishes for ever the irritating, aggravating clatter of a typewriter. This coupon means peace and quiet!

Remington Noiseless



Remington Noiseless
Typewriters

From £17-17-0
or 12 monthly
payments of
£1-11-3.

▼ This coupon will bring you full particulars without obligation. Send it to-day.

COUPON

Remington Typewriter Co. Ltd.,
100 Gracechurch Street, London,
E.C.3. Mansion House 3333.

Please send, free, particulars of the Remington Noiseless Typewriters.

Name

Address

They are selling



COOPER'S CONDITIONETS

A tonic treatment, with an up-to-date formula, for dogs of all sizes. *There is only one strength to sell*, dosage being according to body weight. Conditionets are made in the form of easily crushable tablets, cartons of 14 retailing at 6d., and a larger size containing 36 tablets at 1/-. One dozen of the 6d. size may be obtained mounted on a special hanging display card, thus saving counter space.

SOUND PROFITS IN DOG REMEDIES

Cooper Dog Remedies are a sound proposition, worthy of your consideration. They have been evolved by Veterinarians of established reputation, and are based on up-to-date formulæ which have been thoroughly tested in practice, as well as in the laboratory. Used and recommended by breeders and private owners alike, their excellent results will ensure you regular custom. Retail prices have been kept as low as is consistent with first-class quality, while your own margin has been maintained. The standard range carries 33 1/3% discount, plus 5% extra for monthly cash. We are giving you the fullest support in terms, deliveries, display material and advertising. Send us the attached coupon for full particulars.

PULVEX VERMIN POWDER

Pulvex not only kills fleas, lice, etc., it also protects against reinfestation as long as any remains in the animal's coat. It is supplied in handy, sifter-topped containers, the retail prices of which are as follows:—

Small cartons—

6d. each

6 oz. tins 1/3 each

1 lb. tins 2/6 each

(7 lb. tins are also available at 12/6—
Trade Discount 25%)

PIN THIS COUPON TO YOUR BILLHEAD

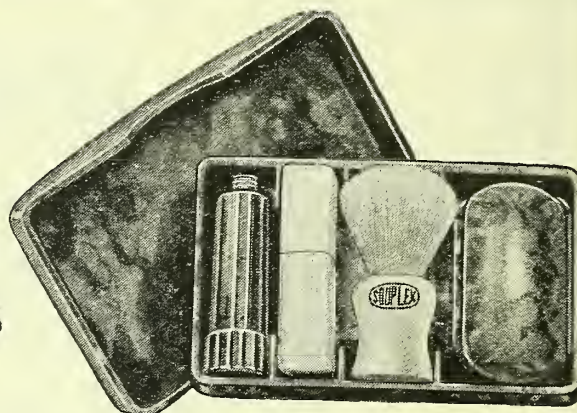
To COOPER, McDOUGALL & ROBERTSON, LTD.,
BERKHAMSTED, HERTS

Please send me full particulars of Cooper Dog Remedies, together with prices and terms.

If you are a dog owner and would like a free sample, place a tick against the product required.

CONDITIONETS PULVEX

COOPER DOG REMEDIES



Women are buying this neat bakelite Shaving Set

Modern fashions in feminine clothes make shaving equipment an essential of the smart woman's toilet needs.

This charming little shaving set will make an irresistible appeal to many of your lady customers. Measuring only 3" x 2", it includes razor, blades, soap and brush, all packed snugly in a dainty little case of mottled bakelite.

Here lies a new market—Order supplies now!
SOUPLEX LTD., MORECAMBE

**Will
YOU
sell
him
his
Holiday**



Anzora!

● TRADE TERMS

Anzora Cream and Viola

6/- doz. retail at 9/-

10/- " " " 15/-

18/- " " " 27/-

Brilliantine

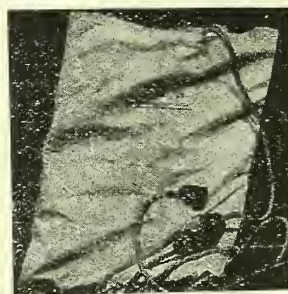
8/- doz. retail at 12/-

Hundreds of thousands of men will be packing a bottle of Anzora in their suitcases when they go on their holidays. It only needs a display of this supremely popular hair fixative to remind them of their need. Make hay while the sun shines!

ANZORA
MASTERS THE HAIR

ANZORA PERFUMERY CO., LTD., LONDON, N.W. 6

ELECTRIC HEATING PADS



Size 15" x 12"
 Retail 21/- Price
 With 3 heat switch

AND
BED WARMING APPLIANCES
 Electrically heated Eye, Ear, Throat, Radium Compresses, etc.

Absolute safety and even temperature assured by thermostatic control

Fully guaranteed Consumption negligible

Your usual wholesaler can supply

Write for lists and terms

AUTO-MAID CO.
 62 Blandford St., London, W.V.1

Welbeck 7357

FOYLES LIBRARIES

A very profitable sideline.
 Write for full particulars.

119-125 CHARING CROSS RD, LONDON, W.C.2

Tel phone: Gerard 5660 (10 lines)

METHYLATED SPIRITS



ALL CONTAINERS
BEAR THIS
TRADE MARK

PROMPT DELIVERIES
OF BEST QUALITY
METHYLATED SPIRITS

DISTRIBUTING DEPOTS:

LONDON
Chancellor's Road,
Hammersmith, W.6.

BRISTOL
Cheese Lane.

BIRMINGHAM
Tyseley Lane, 11.

LIVERPOOL
337 India Building,
Water Street, 2.

MANCHESTER
Dolphin Street,
Ardwick Green, 12.

HULL
Distributing Agents:
Hull Distillery Co. Ltd.,
Salt End, Hedon.

GLASGOW
Allan Street,
Bridgeton, S.E.

LEITH
19 Mitchell Street.

PACKED IN COLOURED CONTAINERS
Deliveries are made in Distinctive Containers as follows—

INDUSTRIAL METHYLATED SPIRITS.....	BLUE
PYRIDINISED	BLACK
MINERALISED	RED
METHYLATED FINISH	YELLOW

THE

METHYLATING CO. LTD.

Regd. Office: KINNAIRD HOUSE, PALL MALL EAST, LONDON, S.W.1

WIRES: METHCOLIM, PHONE, LONDON

PHONE: WHITEHALL 6964

Bishop's Notable



*Bishop's Natural
Fruit Saline on
Special Window
Display Terms
3 free with 3 doz.
P.A.T.A. 2/3, 1/3, 8d.
per doz. 19/-, 10/-, 6/-
CARR. PD. ON £3 order*

WRITE FOR PRICE LIST

AGENCIES IN
CALCUTTA,
BOMBAY, CAIRO,
CAPE TOWN,
PERSIA

Alfred Bishop Limited

Specialities



*Bishop's Varalettes
for Gout*

Vials 1/6, doz. 14/6

Bottles 3/-, per doz. 29/-

30 days' treatment

7/-, doz. 66/-

8 Spelman St.,
Mile End New Town **London E.1**

AGENCIES IN
BARCELONA,
SYDNEY,
TORONTO,
NICE, Etc.

Many years of experience have enabled us to produce on the most economical basis, and—an important point—we buy keenly. A competent and highly trained technical staff in most modernly equipped laboratories ensure products of unvarying quality at interesting prices. We invite your inquiries for drugs, galenicals, packed goods or any of the thousand-and-one everyday requirements of the modern pharmacy. We specialise in preparations which lend themselves admirably to prescribing as one's own specialities. A post card from you will bring details of preparations which can be made into real money-makers.

RHEUMATISM

Tab. Arthritone give results where all other methods of treatment have failed.

30/- per 1,000 net.



NALGO

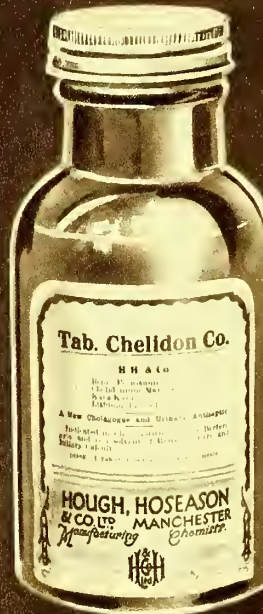
The most modern antiseptic and painkiller. A powerful germicide for every purpose. Neatly packed, it has a ready sale, and retails at

10½d. and 1/6 per bottle.

GALLSTONES

A well-tried remedy for dissolving Gallstones—an admirable preparation affording endless opportunity to enterprising chemists—price in bulk

32/- per 1,000 net.

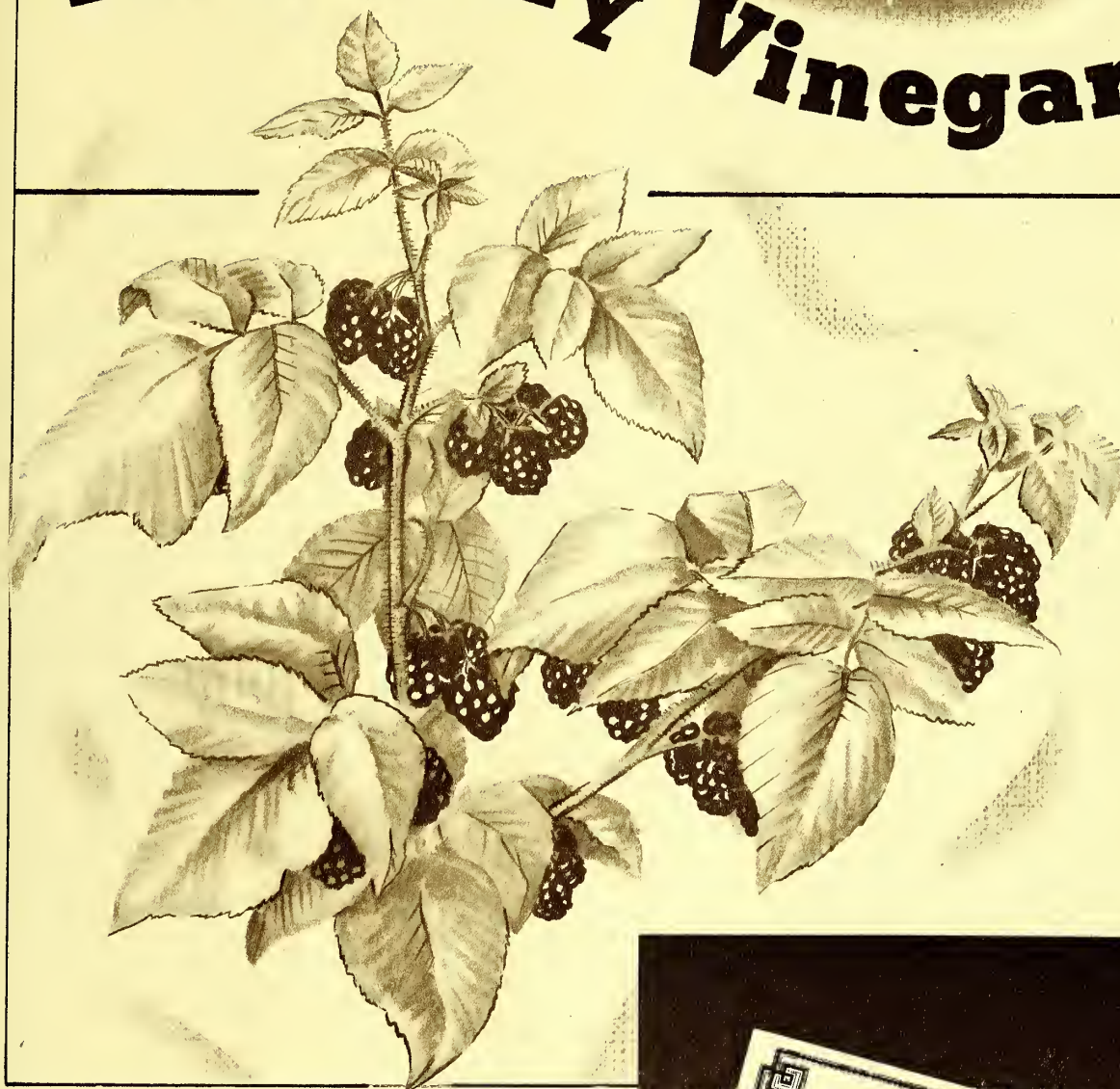


HOUGH, HOSEASON & co. ltd.

Manufacturing Chemists. MANCHESTER 3

A trial will convince you of the merit of our products, and of the service now backing them.

Raspberry *Arnfield's* Vinegar



MADE BY

J. C. ARNFIELD & SONS LIMITED

Prepared from pure Raspberry Fruit Juice and pure cane sugar. Guaranteed free from preservatives and artificial flavourings and to meet the requirements of the Food and Drug Acts and the Pure Food regulations. Will not deposit nor ferment. Supplied in casks, carboys and demijohns. Special terms for contracts. Delivery as required. Sample on request.

**GADSBY WORKS, PRINCES ST.
STOCKPORT**

WHOLESALE AND EXPORT DRUGGISTS : ESTABLISHED 1786



The Malt that cannot Crystallise



Jeffreys, Miller

LONDON BRANCH:—

8A DURHAM ROAD HOLLOWAY LONDON N7 TELEPHONE ARCHWAY 3627

Just as nice as it looks!



CONCENTRATED
L. B. W.
 LEMON BARLEY WATER

RETAIL PRICE: **1/9** PER 26 oz. BOTTLE.

WHOLESALE: **16/-**

SIX DOZEN LOTS: **15/6** PER DOZEN

GROSS LOTS: **15/-**

... and it will be **THE BIG SELLER** in soft drinks this season! ... firstly, because of its infinitely superior palatability, and secondly as it is receiving every support in the National press.

If you would like a supply of the attractive material illustrated above, either apply to your wholesaler or write direct to us.

Manufacturers: L.B.W. LTD., Newcastle-on-Tyne, 1.



"An asset to the man who foots the bill"

In this printing business of ours we like to see all our efforts a little above the ordinary, for there is a particular pleasure and satisfaction in the effort which takes a man out of convention and out of himself. When a man takes his coat off to a job and tackles it with enthusiasm you know he is going to be happy, and the result is the kind of printing which is a credit to all concerned, and a distinct asset to the man who has to foot the bill. It should not be necessary, of course, to ask if a man likes his work—the spirit of unbounded enthusiasm ought to show it. A man should be so much in love with his job that he finds his greatest delight in it. He will love it for its own sake. He will see no difference between the pleasure he gets out of his job and that which he gets out of his spare hours. There can be no thrill or joy of achievement in work which has been carried out in a half-hearted and careless manner, and the man who has not discovered the joy of putting his heart and soul into every job he undertakes to do does not know the first principle of progress and success. We make a point of always trying to inspire the members of our own staff with the spirit of service and true craftsmanship. They love their job and they like to do it as well as they possibly can. They also love getting to know more and more about it, and their enthusiasm and determination to produce printing which will speak well of the customer and interest people in what he has to sell is expressed and visible in every transaction. That is probably one of the reasons why so many people like to tell us what jolly good printing we are producing for them.

Ideas and rough suggestions are prepared free and without any obligation

THOMAS **WAIDE** & SONS LTD

KIRKSTALL HILL LEEDS 5

Part of a vast organisation for the protection of products



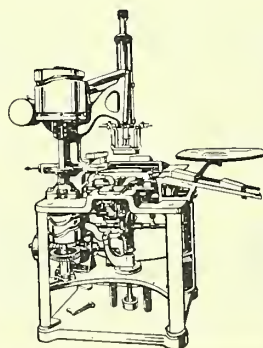
Here is seen one of the great factories where Robinson's of Chesterfield make round, square and folding boxes. Founded in 1839 for the making of round pill boxes this firm has steadily grown in size and scope until to-day it is among the leaders of the box-making industry.

It has always been the policy of

Robinson's of Chesterfield to assume that a product worth packing is worth packing well. And by "packing well" Robinson's mean that the packing must not only protect, it must also sell. So the works at Chesterfield include studios to produce first-class selling designs backed up by an ultra-modern plant.

MODERN MACHINERY


Robinson's of Chesterfield have progressed with the times and never hesitated to scrap machinery when more up-to-date methods came to the front. Much of the intricate machinery has been evolved from the firm's long experience by members of the Robinson family.



SPECIALISATION

"Jack-of-all-Trades and master of none" does not apply to Robinson's of Chesterfield; their speciality since 1839 has been the manufacture of *small* cardboard boxes.

WHEN YOU'RE THINKING OF BOXES



SOLVING YOUR PACKING PROBLEMS

There are few problems in the world of round, square or folding boxes that Robinson's of Chesterfield cannot solve. Their wealth of experience and the knowledge gained during nearly a century of box making is at your disposal.

It will often be found that, by stating the exact price you are prepared to pay, Robinson's of Chesterfield can produce a better and more attractive box than is possible if their hands are tied by hard and fast conditions. Make your next order for boxes a test of the abilities of Robinson's of Chesterfield. You will not be disappointed.



ROBINSON AND SONS LTD

CHESTERFIELD

WHEAT BRIDGE MILLS

CHESTERFIELD

Telephone No.: Chesterfield 2105

Telegrams: "Boxes" Chesterfield

LONDON

168 OLD STREET

LONDON, E.C.1

Telephone: Clerkenwell 8461

Telegrams: "Staglint" London

THINK OF ROBINSON'S OF CHESTERFIELD



TABLET MACHINES,

TABLET MAKING PLANT, AUTOMATIC WATER STILLS

HELP, ADVICE and GOOD SERVICE

ALL our products are made with a view to supplying the Manufacturer or other users with the exact type most suitable for the purpose required.

From the small hand-worked Tablet Machine (for the small Manufacturer or Retail Chemist or Hospital Dispensary) to the larger machines supplied to the firms making vast quantities of tablets, all are the last word in efficiency, brought to perfection through years of actual experience.

We invite enquiries concerning the making of tablets of whatever nature or quantity.

We will advise as to the most suitable machine, solve all your tablet-making problems, and show you how to make perfect tablets—that is our service.

On the opposite page we illustrate and describe briefly a few of the **MANESTY** Machines and Water Stills, and we will gladly furnish full details of any Machine or Still in which you may be interested.

STOKES MANESTY
Machines and Water Stills

will in future be known
under the name



our registered
Trade Mark



THOMPSON & CAPPER WHOLESALE LTD

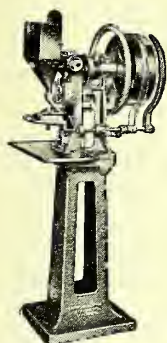
MAKERS OF CHEMICAL AND PHARMACEUTICAL MACHINERY

MANESTY BUILDINGS 5, COLLEGE LANE, LIVERPOOL, I

MANESTY

TABLET MACHINES,

TABLET MAKING PLANT, AUTOMATIC WATER STILLS



'E' Tablet Machine

MANESTY

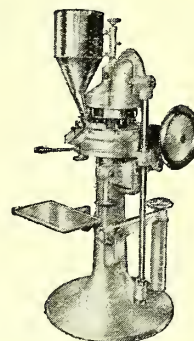
'E' TABLET MACHINE

is a single punch power-driven machine for producing tablets up to $\frac{1}{2}$ " diameter. Output about 100 tablets per minute. Power required 1 H.P.

MANESTY

ROTARY TABLET MACHINES

Fitted with dust-proof attachments, thus ensuring absolutely dustless and clean tablets. Beautiful machines, almost silent in action, turning out large quantities of tablets with ease and regularity. This illustrates the "B" Rotary machine, which produces 400-500 tablets per minute. The "D" Rotary is a larger type, producing a large variety of shapes of tablets up to 1" diameter at the rate of 300-350 per minute. Power required for both machines, 2 H.P.

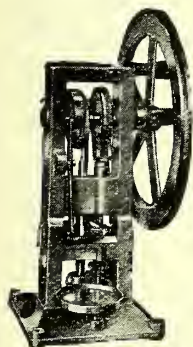


Rotary Tablet Machine

MANESTY

HAND TABLET MACHINE

The MANESTY Hand Tablet Machine is a new model and is made especially for the Pharmacist who makes his own tablets, for Hospital Dispensaries, or for the manufacturer for testing purposes, or for small quantities of special tablets. This machine makes about 100 tablets per minute of any size up to $\frac{1}{2}$ " diam. It is strongly built, the weight and pressure adjustments are easily made and all the latest improvements are incorporated, making the machine very easy to work and turning out perfect tablets without any trouble.

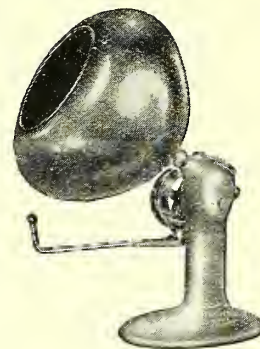


Hand Tablet Machine

MANESTY

COPPER COATING PAN

has all working parts enclosed in the pillar and away from sugar and dust. Parts that bear the most strain are made specially thick. Power required $1\frac{1}{2}$ H.P.

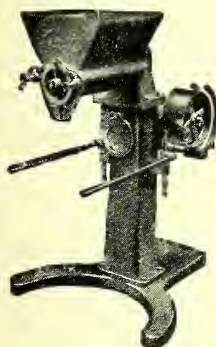


Copper Coating Pan

MANESTY

OSCILLATING GRANULATOR

is indispensable for producing perfect granules, and has a capacity of about 150 lbs. per hour. Does the work of about four operators, more efficiently. Power required 1 H.P.



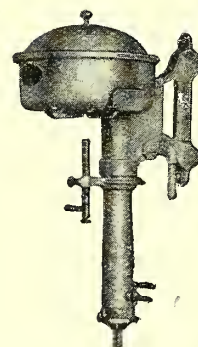
Oscillating Granulator

MANESTY

'O' WATER STILL

Produces 3 pints of distilled water per hour at less than $1\frac{1}{2}$ d. per gallon. It is automatic, economical and reliable.

Also a full range of MANESTY Automatic Water Stills, operated by gas, paraffin, steam or electricity; producing from 3 pints to 50 gallons of distilled water per hour.



'O' Water Still (Gas Heated)

THOMPSON & CAPPER WHOLESALE LTD

MAKERS OF CHEMICAL AND PHARMACEUTICAL MACHINERY

MANESTY BUILDINGS 5, COLLEGE LANE, LIVERPOOL, 1

WE ASSIST YOUR OLIVE OIL SALES by EFFICIENT PROPAGANDA



SASSO OLIVE OIL THE EPICURE'S BRAND

PRODUCERS

P. SASSO & FIGLI

ONEGLIA
ITALY

SOLE DISTRIBUTORS

FREDK. BOEHM LTD.

17 JEWRY STREET
LONDON, E.C.3

For "QUALITY"
"TABLOID"
"RYTOL"

For well-graded negatives and rich prints, use
"Pyro" Universal Developer
Just open and dissolve to produce fresh, fully active developer.
Pictorialists use it

Link up

Get your share of the benefit which is sure to follow the current advertising campaign for these well-known photographic products.

Attractive show material available on request.

'TABLOID' BRAND PHOTOGRAPHIC CHEMICALS

See Burroughs Wellcome & Co. Price List, for range of products and prices

PHOTOGRAPHERS—
'TABLOID' FINE-GRAIN Developer
Produces minimum grain. Permits maximum enlargement.
Send for FREE Specimen

"THE SHEPHERD"
Negative and print developed with 'TABLOID' 'RYTOL'
'TABLOID' 'RYTOL' Universal Developer
Keeps perfectly. Yields fresh, full strength solutions.
COUNT AND DISSOLVE
BURROUGHS WELLCOME & CO. LONDON

Develop in Comfort
'TABLOID' Desensitiser
Makes possible the development of negatives in a comfortable light. Panchromatic may be processed in bright yellow light.
Cartons containing 25 products, 1/8. All Photographic Dealers
BURROUGHS WELLCOME & CO. LONDON

'TABLOID' FINE-GRAIN Developer
Produces minimum grain. Permits maximum enlargement.
Send for FREE Specimen
BURROUGHS WELLCOME & CO. SHOW HILL BUILDINGS, LONDON, E.C.1

Improve your prints with colour. Pleasing variations result from the use of
'TABLOID' TONERS
BLUE, GREEN, SEPIA, COPPER
2/- per carton from all Photographic Dealers. Write for literature.
BURROUGHS WELLCOME & CO. SHOW HILL BUILDINGS, LONDON, E.C.1

USE
'TABLOID' 'RYTOL' Universal Developer
Yields soft, well-graded negatives. Simple and economical in use. 1/8 Cartons of all Photographic Dealers. Write for literature.
BURROUGHS WELLCOME & CO. SHOW HILL BUILDINGS, LONDON, E.C.1

'TANCOL' DEVELOPER
Ideal for tank or dish. Produces negatives with pyro quality which yield bright, forceful prints.
Count and dissolve.
Carton contains sufficient products to make 100 cu. in. of Tank Developer
BURROUGHS WELLCOME & CO. LONDON



BURROUGHS WELLCOME & CO., LONDON
G 1875
COPYRIGHT



SUCCESS

Peptets, in their new and attractive packing have been a great success. They **do** relieve indigestion, hence their recommendation by the pharmacist brings him the goodwill of his customer. In response to requests, we are continuing the bonus of **13 to the dozen**

P.A.T.A. PRICES

Retail 1/-

Wholesale 7/6 per doz. net

A Product of THE BRITISH DRUG HOUSES LTD., LONDON, N1

T.G.S.

THE CHEMIST AND DRUGGIST

A Weekly Journal of Pharmacy, the Drug, Chemical and Allied Trades

*The official organ of The Pharmaceutical Society of Ireland,
The Pharmaceutical Society of Northern Ireland,
The Chemists' and Druggists' Society of Ireland, and of
other Chemists' Societies in Overseas Dominions*

ANNUAL SPECIAL ISSUE 1935

PUBLISHED AT

28 ESSEX STREET, STRAND, LONDON, W.C.2

Telegrams: "Chemicus, Estrand, London"

Telephone: Central 6565 (8 lines)

4 CANNON STREET, MANCHESTER (TEL.: BLACKFRIARS 3052)
54 FOSTER'S BUILDINGS, HIGH STREET, SHEFFIELD (TEL.: 22458)
19 WATERLOO STREET, GLASGOW (TEL.: CENTRAL 2329)

BRANCH OFFICES

372 FLINDERS LANE, MELBOURNE, AUSTRALIA
55a SHORTLAND STREET, AUCKLAND, NEW ZEALAND
155 AVENUE DE WAGRAM, PARIS, XVII^e (TEL.: ETOILE 19-79)
PLANTAGE FRANSCHELAAN 32 AMSTERDAM-C, HOLLAND

VOL. 122. NO. 2890

CONTENTS

JUNE 29, 1935

PAGE	PAGE	PAGE	PAGE
Anisometropia 775	Editorial Articles:—	MEDICINE IN ANCIENT	Pharmacy in Palestine ... 803
At the Counter 776	"Summer Is Icumen	IRELAND 811	Pharmacy in West China 826
Belfast 1898 Conference 810	In " 809	National Pharmaceutical	Poisons Board Comments 777
BELFAST BOTANIC GAR-	"Free List"—Official	Union 777	Retrospect 834
DENS 819	Rulings 809	New Companies and Com-	SCIENCE IN CRIME DE-
Business Changes 807	EIGHTEENTH CENTURY	pany News 774	TECTION 783
Canadian Notes 776	DOMESTIC MEDICINE ... 799	News of the Week 771	Scottish Notes 773
Codex Latin 804	Ginseng 830	Notes on Essential Oils... 775	Topical Reflections 773
CONFERENCE CHAIRMAN'S	GOVERNMENT LABORATORY 787	Personalities 807	Trade Marks 806
ADDRESS 779	Imperial News 776	PELOIDS, PELOLOGY AND	Trade Notes 805
Correspondence:—	Irish Notes 772	PELOTHETAPY 821	Trade Report 831
Letters 833	Japanese Agar 823	PHARMACEUTICAL SALES-	Unique Hobby 782
Dispensing Notes 833	King of Cloves Holds	MAN 824	Wills 807
Miscellaneous Inquiries 834	Court 827	Pharmaceutical Society	
Deaths 807	Legal Reports 774	of Northern Ireland:—	
Diabetes and Insulin 804	London—Paris—New York 829	Council Meeting 778	
	Marriages 807	Administration Report... 778	

News of the Week

Poisons Board Report

The following paragraphs are taken from the official report of the proceedings in the House of Commons on June 24:—

Captain P. MacDonald asked the Secretary of State for the Home Department whether he has yet considered the report of the Poisons Board with regard to the new poisons regulations and lists; whether he proposes to make any amendments thereto; and, if not, by what date it is proposed to lay the order for the enforcement of these proposals before Parliament?

The Under-Secretary of State for the Home Department (Captain Euan Wallace): Notice of my right hon. friend's intention to confirm the Poisons List, prepared and submitted to him by the Poisons Board, and to make Rules under Section 23 of the Pharmacy and Poisons Act, 1933, was published on the 18th of this month. I cannot say what amendments, if any, will be made in the draft List and Rules until my right hon. friend has considered such representations as he may receive in regard to them. The Rules and the Order confirming the Poisons List will, as required by the Act, be laid before Parliament as soon as they are made.

Institute of Chemist-Analysts

The Institute of Chemist-Analysts has been affiliated to the International Faculty of Sciences, and Dr. J. Cofman-Nicoresti, M.P.S., has been elected to the Executive Committee of the Faculty. By this affiliation every subscribing member of the Institute becomes a Fellow of the Faculty and receives "The Science Forum," the official organ of the Societies forming the Faculty. It is expected that the step thus taken will prove to be an important factor in the consolidation of the Institute. The president of the Faculty is the Marquis of Tavistock; the

general secretary is Mr. H. J. C. Day; and the central administrative office is at 85 Gloucester Place, London, W.1.

Outings

About fifty members of the staff of Chas. Zimmermann & Co., Ltd., spent an enjoyable day at Hastings on June 22. Mr. Charles Bell (managing director) presided at the luncheon at the Palace Hotel.

A party of members and friends of the Birmingham Pharmaceutical Association visited Maxstoke Castle, near Coleshill, on June 19. A conducted tour was arranged under an experienced guide. Tea was served at the Castle, and the evening was spent in playing clock golf, bowls and archery in the grounds.

The sports meeting of W. J. Bush & Co., Ltd., took place on the Leyton Football Ground, E.10, on June 22, when some 2,000 spectators, made up by members of the company, their families and friends, enjoyed an excellent afternoon's sport. The weather was ideal, although for some of the competitors the temperature was a little on the high side. The usual excellent standard of performance was maintained, a notable achievement being that of Mr. A. G. W. Hitchcock, who on the grass track ran the 100 yards in 10 3/5 secs. The Baroness de Bush presented the prizes. Letters of regret for absence were received from Mr. A. W. Bush and Dr. Isherwood; the former, who has been ill, is now happily making a good recovery. Among others present were Messrs. J. M. Bush (chairman), E. L. Bush, H. B. Bush, C. F. Bush, B. H. Bowles, R. Van Lessen, A. H. Little, Gerald McDonald and A. P. White.



The B.D.H. outing took place on June 22. The largest number went by special trains from Waterloo, others going by road. The weather having donned its best summer garb, the arrival at Southsea saw an eager and enthusiastic throng of seekers after enjoyment. An excellent luncheon was provided at the Savoy Café. The toast of "The Directors of The British Drug Houses, Ltd.," proposed by Mr. R. J. Whinney, was enthusiastically received; and in his reply the chairman and managing director (Mr. C. A. Hill) made reference to the pleasure it gave to see such a large number of the retired employees with them that day. The board of directors was well represented, there being present, in addition to the managing director, Dr. F. H. Carr, Mr. F. C. O. Shaw, Mr. Mervyn Hill and Mr. Alan Hill. The amenities of Southsea and of much of the Isle of Wight must have been completely exhausted by the time the holiday-makers made their way homeward.

London

The annual meeting of the South-East London Chemists' Association was held at Greenwich on June 18, Mr. Cecil H. Foster in the chair. The treasurer's report, indicating a small deficit on the year's work, was presented by Mr. E. Richardson. Mr. W. B. Paton (financial and benevolent fund secretary) and Mr. E. Oswald Wells (general secretary) presented their reports. The reports were adopted and the officers thanked for their services. Officers for the new session are as follows:—*President*, Cecil H. Foster (East Dulwich); *Vice-Presidents*, James Paterson (Woolwich), F. J. Dyer, B.Sc.; *Treasurer*, Edwin Richardson (Brockley); *Financial Secretary*, W. B. Paton (Woolwich); *General Secretary*, E. Oswald Wells (general secretary to the South-Eastern Associations). No changes were made in the *personnel* of the standing committees nor in the representatives to the London County Pharmaceutical Association Executive. A vote of £5 5s. to the Benevolent Fund was made on the motion of Mr. Milner.



MR. & MRS. H. HOMEWOOD

LEAVING THE CHURCH

AFTER THEIR WEDDING

(C. & D., JUNE 15, P. 713.)

The London Chemists' Golfing Society competed at the West Surrey Golf Club for the Morny prize and the Thomson cup.

Results:—

F. C. Jones ..	88-14=74	F. G. Wells ..	93-14=79
W. Clark ..	94-16=78	G. Beaton ..	94-14=80
H. Warburton ..	97-18=79	J. Jones ..	96-16=80

The medal round and Morny prize were won by F. C. Jones and the Thomson cup was won by G. Beaton.—A competition at the Wilderness Country Club, Seal, Sevenoaks, for the president's prize and the Rowland Stag prize resulted as follows:—

E. C. Pryce ..	85-12=73	W. A. Cattwood ..	88-12=76
H. Warburton ..	92-18=74	T. G. Don ..	94-18=76
L. J. Morson ..	88-14=74	H. R. Nightingale ..	95-18=77

Mr. E. C. Pryce won the president's prize and Mr. T. G. Don won the bogey and the Rowland Stag prize.

Manchester

The Clayton Aniline Co., Ltd., has subscribed £105 to Manchester's fund for the King's Jubilee Trust.

At Blackley Golf Club on June 19 the Manchester and District Chemists' Golfing Society held a competition for the Kerfoot trophy and memento prize. The leading returns were:—F. D. Gee and W. J. Hope (tied), 72; S. M. Bostock, 74; J. H. Franklin, 76; W. E. Phillipson, 77. The tie will be played off later.

Miscellaneous

POISON-LICENCE APPLICATION.—Low Bros. (Norwich), Ltd., St. Stephen's Road, Norwich, have applied to the City Council for a licence to sell arsenical insecticides and weed-killer.

ADVERTISING ASSOCIATION.—The eleventh annual Convention of the Advertising Association was held at Torquay on June 22-26 inclusive, under the presidency of Sir John Pybus, Bt., M.P.

Irish Notes

Westmeath Federation of Pharmaceutical Chemists

At a well-attended meeting of the Westmeath Federation of Pharmaceutical Chemists held recently at Mullingar the following new members were welcomed: Messrs. J. McKeever, F. X. Wilson, W. Finnegan, and Miss Loughran from Navan, and Messrs. Bourke and Walsh from Roscrea. A letter read from a Dublin wholesale firm regarding the employment of a qualified chemist on their staff was regarded as unsatisfactory. It was decided to convey the Federation's views to the central body in Dublin on a number of letters received from manufacturers of veterinary preparations. A discussion on the question of promoting a company was deferred to the next meeting. It was agreed to request all members to discontinue penny sales, the matter to be mutually arranged by the members in each town in the area. Complaints were made that one Dublin wholesale house was making deliveries in Mullingar and Birr areas to non-chemist traders. The secretary was instructed to take up the matter. At the request of the Navan chemists the Drogheda chemists are to be invited to attend the next meeting, which will be held in Mullingar in October, when a dinner will be given to mark the opening of the winter meetings. It was further agreed that the Templemore, Thurles and Nenagh will also be organised under the Federation during the summer. Mr. T. J. Leahy, L.P.S.I., Granard, requested to be made a member of the central body. The secretary reported that the Federation had now a membership of fifty. A motion from the Galway Chemists' Association regarding L.A.H. registration was unanimously adopted. A small standing committee of Mullingar chemists was appointed to deal with any matters calling for attention until the next meeting in October.

Belfast

Dr. E. G. Bryant, Ph.C., of Birmingham, a delegate to the British Pharmaceutical Conference, was the preacher at Carlisle Memorial Methodist Church, Belfast, on June 23. This church is known as "the Cathedral Church of Irish Methodism."

Mr. Frederick G. Walsh, who died suddenly in Belfast on June 24, was the examiner in business methods for the Pharmaceutical Society of Northern Ireland from its inception until



this year. He was a member of the firm of Robt. Walsh & Son, chartered accountants, High Street, and had been at business on the day of his death.

The employees of J. & J. Haslett, Ltd., Belfast and Dundalk, held their annual excursion to Rosstrevor recently. Over 120 persons sat down to tea and dinner. Outdoor sports had to be cancelled owing to the weather, but dancing and games in the ballroom enabled the company to pass a pleasant evening.

Chemists and Druggists Society of Ireland

A meeting of the General Committee was held on June 18 at 11 Waring Street. The following were present:—Mr. Fred Storey (president) in the chair, Messrs. Charles Abernethy, E. A. Richey, H. Johnston, H. McQuitty, W. Gilmore, J. Gray, E. J. Roberts, D. A. Taylor, W. Martin, and James Macauley (secretary). Apologies for absence were received from Mr. S. Gibson (treasurer) and Councillor Groves. The minutes of the Finance Committee were read, and the president gave particulars of each item of their investments, some of which had been liquidated. The trustees in future would be the president, treasurer and secretary. On the motion of Mr. H. Johnston, seconded by Mr. Martin, these minutes were unanimously passed. The following subcommittees were appointed:—

Law.—Messrs. S. Gibson, McBirney, H. Johnston, C. Abernethy, E. Richey, James Guthrie, H. McQuitty.

Rooms.—Messrs. E. Roberts, C. Abernethy, W. McKee, Councillor Groves.

Finance.—Messrs. S. Gibson, C. Abernethy, W. Martin, E. Richey, D. A. Taylor.

Social.—Messrs. E. McRoberts, A. E. A. Davis, R. Jamison, H. Johnston, W. E. Wilson, John Gray, D. A. Taylor.

It was decided to get further information regarding the proposed amendment to the Early Closing Shop Hours Act. Other matters of interest to the trade were discussed.

Scottish Notes

Brevities

Methyl chemists have agreed to close half an hour earlier each weekday and on Sundays.

Mr. Alexander A. Dick has been elected chairman of the Lanarkshire Health Insurance Committee.

A meeting of the Fifeshire Branch of the P.D.A. at Leven was addressed by Mr. W. S. Culbert (Airdrie) on June 19.

A party of former pharmacy students of Dundee Technical College visited Arbroath on June 19. They were met by Mr. James Jack, Ph.C., and proceeded to the Bathing Pool, where several had a dip. After tea the company were shown round the Abbey and the Abbot's House Folk Museum.

A correspondent (25/6) writes:—"It is common knowledge that the benevolent fund distributes more money in Scotland than it receives from that source. It is also known that too members of the Society have not paid their retention fees for the current year. What inference is to be deduced from these facts? It would appear that some form of superannuation should be instituted at an early date."

At Dalmahoy Golf Course, on June 19, a match between Edinburgh Chemists and Blandfield Golf Club (T. & H. Smith, Ltd.), resulted in a draw. Results:—

Chemists		Blandfield	
J. Finlay and E. Randall ..	0	A. P. Philip and T. C. Haddon ..	1
W. J. Rosie and W. Herd ..	1	A. S. Cooper and W. Watson ..	0
M. Stoddart and D. Barrie ..	1	H. Stout and J. Laing ..	0
A. H. Gillies and W. A. M. Houston ..	0	J. Hiddleston and W. Stout ..	1
J. P. Gibb and J. Crawford ..	0	W. Dow and G. Black ..	1
J. M. Foote and W. Chambers ..	1	R. Wallace and G. Spittal ..	0
	3		3

Topical Reflections

By Xrayser

You Are Right

in suggesting that the trade is not as yet too enthusiastic over the report of the Poisons Board (C. & D., June 22, p. 751). Some pharmacists are, probably, already bored; the matter has been hanging fire so long that it is difficult to arouse much enthusiasm regarding it one way or the other. I shall have something to say on various aspects of the report before May 1, 1936, but I feel more strongly than ever that there is one aspect which from the first has not received the attention it has deserved from pharmacists—I refer to the regulations that permit others than pharmacists to obtain supplies of poisons required in their businesses from wholesalers and manufacturers. This will mean a big impetus to the sale of poisons by "direct mail" from manufacturers. I foresee that many manufacturers of agricultural and horticultural poisons, for instance, will go out for business with classes of buyers which hitherto have usually purchased their requirements from the chemist. The "farmers, gardeners, rat-catchers and even private individuals" will be able, by sending a signed order to a manufacturer or wholesaler, to get supplies of poisons for trade purposes. Pharmacists may, of course, prevent much of this business going if they will cater for it themselves; whether they will do so remains to be seen.

The Courage

of that veteran pharmacist, Mr. Alfred Higgs, in taking upon himself the task of initiating some action regarding the destamping of proprietaries, is to be admired. It is a vexed question. I can appreciate the point of view of the manufacturers, who may argue that the money saved on the stamps, after giving the pharmacist a small portion of it in increased profit, goes into selling expenses (advertising or marketing), which produces bigger sales, of which the pharmacist, as vendor, gets his share. I appreciate also the view held by the pharmacist that this action is really an exploita-

tion of his qualification. This matter should be taken up by one of our associations. The question is, which one? The Pharmaceutical Society would consider such a matter as quite beneath its notice and would probably refer it to the P.A.T.A. But this body exists for maintaining prices and, incidentally, keeping profits at certain levels. The National Pharmaceutical Union seems to be the ideal body for fostering such a movement, and I suggest that this matter might well be referred to the joint committee of representatives of the wholesale and retail trades which has been set up to deal with just such questions.

A Vigilance Committee

seems to be needed, the functions of which would be to watch over the interests of pharmacists, particularly when held up to ridicule in the public Press, or when inaccurate or misleading statements are made about them publicly (p. 751). It should be the duty of the secretary of such a committee to take up promptly all derogatory statements in the Press and to refute them; this work should be done in a routine way under the control of the Pharmaceutical Society. Many of these statements are, I am convinced, made by journalists who are either in profound ignorance of pharmacy or, in an "interview" with a "well-known chemist," get some statement which, when it appears in print, is inaccurate and misleading. Why is the average novel writer so ignorant of pharmacy? I have been re-reading "Tono Bungay" recently, and I have been struck with the unlikeness of the principal character, a chemist, to any chemist I have ever known. It is true that the story was written several years ago; even so, the chemist then had to possess some rudimentary ideas on how to speak and write correctly and when to use the aspirate. Our status would be raised tremendously if we had an active committee whose function was to enlighten the public, not only in the Press, but in correspondence, as to what part we play in the social organism.



Legal Reports

A Successful Defence.—In Worcester County Court, recently, Mr. Frank W. Fisher, farmer, Acton Hall, sued W. J. Craven & Co., Ltd., manufacturing chemists, Evesham, to recover the sum of £100 for alleged damage to a potato crop through spraying the plants with Bouisol. Mr. J. F. Bourke, for the plaintiff, said the breaches of contract alleged were that the mixture was so inefficiently and negligently prepared and applied to the crop that it was damaged, that the mixture was unfit to be used and was not of mercantile quality. The estimated difference between the value of the crop undamaged and that actually obtained was £135. There was a counterclaim for £20, the agreed price of the Bouisol, which the plaintiff had not paid. After some evidence had been given, Mr. T. S. Sanderson, who appeared for the defendants, read a letter from the Electro Chemical Processes, Ltd., stating that the crops must have suffered from the drought. They offered to supply Bouisol free of cost for spraying five acres the next season, and invited Mr. Fisher to use any other spraying material on another five acres alongside. The judge suggested that the case was one which should be settled between the three parties. No settlement, however, was arrived at, and the case proceeded. For the defence Mr. Ernest C. Large, B.Sc., manager of the colloidal products department of the Electro Chemical Processes, Ltd., said the field in which the damage was complained of sloped down to a stream. The plants showed a condition he knew as "potato rust." Miss E. P. Wilson, another expert, gave similar evidence. Mr. Sanderson submitted that it was impossible for the Bouisol to have done the damage alleged when applied at a third too strong a concentration. It had been proved that Bouisol could be applied at twelve times the recommended strength without injurious results. The judge said that the loss of the crop had to be explained somehow, and the plaintiffs said the Bouisol was at fault. However, several other theories had been advanced. He was unable to reject all these in favour of the plaintiff's theory, attractive as it might be. He had relied on the scientific fact that Bouisol, in the wrong proportions, was injurious to plants. The respondents had called evidence which showed this was not so. The action would fail, with costs, and the counterclaim succeed, with costs. The respondents would pay the third party's costs.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office

BANKOO OIL, LTD. (P.C.).—Capital £1,500. Objects: To manufacture and deal in perfumes and essences, oils, soaps and toilet preparations, etc. R.O.: 115 Chancery Lane, W.C.2.

RODOMEL BEAUTY PRODUCTS, LTD. (P.C.).—Capital £1,000. Objects: To deal in essences, lotions, soaps, cosmetics, etc. R.O.: 27B Beauchamp Place, S.W.

ROMANY CURES, LTD. (P.C.).—Capital £500. Objects: To carry on the business of manufacturers of drugs and medicines, etc. R.O.: 11 Sir Isaac's Walk, Colchester.

CESAR LABORATORIES, LTD. (P.C.).—Capital £500. Objects: To carry on the business of manufacturers of and dealers in dentifrice, chemical and pharmaceutical products, etc. The first directors are not named.

MATTHEWS, PERREN & CO., LTD. (P.C.).—Capital £300. Objects: To acquire the business carried on by Matthews (Cash Chemists), Ltd., at Palmer's Green. R.O.: 90 Alderman's Hill, Palmer's Green, N.13.

INTERNATIONAL NITROGEN ASSOCIATION, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of dealers in nitrates and chemical products, etc. R.O.: 85 London Wall, E.C.2.

H.C. PRODUCTS (P.C.).—Capital £5,000. Objects: To carry on the business of manufacturing and research chemists and chemical engineers (especially in relation to the treatment of coal, lignites, shale and peat), etc. R.O.: 7 Finsbury Square, E.C.2.

J. M. WHELAN & SONS, LTD. (P.C.).—Registered in Dublin. Capital £5,000. Objects: To carry on the business of manufacturing and distributing chemists, druggists, opticians, etc.

UNION ALKALI CO., LTD. (P.C.).—Capital £6,000. Objects: To carry on the business of manufacturers of and dealers in chemicals, gases, drugs, medicines, etc. R.O.: Soho Works, Ancoats, Manchester, 4.

WALDEN & CO. (NUFIX), LTD. (P.C.).—Capital £7,500. Objects: To acquire the business now carried on at 15 Grape Street, New Oxford Street, W.C.1, and at Rookery Way, The Hyde, Hendon, as "Walden, Walden & Co.," and to carry on the business of manufacturing and general chemists and druggists, etc. R.O.: Rookery Way, The Hyde, Hendon, N.W.9.

ELECTRO-ALLOYS, LTD. (P.C.).—Capital £10,000. Objects: To carry on the business of manufacturing and treating by electrolytic, chemical and other means, tungsten, molybdenum and other metals, and to adopt an agreement with M. A. Halle & Co., Ltd., and Max. A. Halle. Solicitors: Bulcraig and Davis, Amberley House, Norfolk Street, W.C.2.

P. WINN'S PRODUCE CO., LTD. (P.C.).—Capital £2,500. Objects: To acquire the business of "Z" Department of the business carried on by Paul Winn & Co., Ltd., at Tower House, 40 Trinity Square, E.C.3, and to carry on the business of dealers in drugs, waxes, chemicals, etc.

COLLOIDAL DETERGENTS OF AUSTRALIA, LTD. (P.C.).—Capital £5,000. Objects: To carry on the business of manufacturers of and dealers in graded and sterilising detergents for industries, oils, toilet requisites, medicinal preparations, etc. Solicitors: Ward, Bowie & Co., 2 Clement's Inn, W.C.2.

DAVIS PETROL SOAP CO., LTD. (P.C.).—Capital £10,000. Objects: To carry on the business of manufacturers and merchants of soap and its derivatives and by-products, and to adopt an agreement with Inzersdorfer Chemische Industrie Gesellschaft m.b.h., of Inzersdorf, near Vienna, whereby the company will manufacture or cause to be manufactured under licence and sell its soap products. The first directors are:—John H. Davis, 119 Piccadilly, W. (director of Gloria Products, Ltd., and other companies); Sir James Adam, C.B.E., K.C., Colne Park, Earls Colne, Essex.

MESSRS. COCKBURN & CO., LTD., Glasgow.—Dividend declared on the ordinary shares of 25 per cent., less tax, the same as for last year.

A. BOAKE ROBERTS & CO., LTD.—Report for year to March 31 shows profit, after depreciation and debenture interest, £63,876 (against £89,176); add £76,851 brought in, making £140,726; fees, tax, preference dividends, etc., take £44,383; final ordinary dividend 2 per cent., tax free, making 8 per cent. (against £89,176); add £76,851 brought in, making £140,726; reserve, £10,000; forward, £70,343. Meeting, Carpenters Road, Stratford, E.15, July 3, at noon.

Private Arrangement

Edwin Goodwin Jones, The Pharmacy, Ffynnon Groew, Flintshire, chemist and druggist. A meeting of the creditors was held recently at the offices of the Association of Manufacturing Chemists, Liverpool. Mr. Parkin S. Booth submitted a statement of affairs which showed ranking liabilities of £632 13s. 1d., of which £584 19s. 4d. was due to the trade and the balance of £47 13s. 9d. to partly secured creditors. The total claims of the latter were £208 13s. 9d., and they held securities valued at £161. After allowing £3 5s. for preferential claims, the net assets were £233 5s., or a deficiency of £399 8s. 1d. The assets comprised: Stock £220, expected to produce £150; fittings, fixtures and utensils, £50; household furniture, £7 10s.; motor car, £4; and book debts £35, estimated to realise £25. It was decided that the debtor should be requested to execute a deed of assignment to Mr. Booth as trustee, whilst a committee was also appointed consisting of three of the principal creditors. It was decided that the business should be continued for a month and trading figures prepared, when the committee would decide the most advantageous method of dealing with the assets.



Notes on Essential Oils

From Schimmel's Report, 1935.

ANGELICA ROOT OIL.—Späth and Perta have shown that the lactone isolated from the oil by Böcku and Hahn is identical with osthol, the lactone isolated from the oil of *Imperatoria Ostruthism*. It melts at 83°-84° and has the formula $C_{15}H_{16}O_3$. They have also found a new lactone in angelica root oil. This has the formula $C_{11}H_{14}O_3$ and has been named angelicin. It melts at 138°-139.5°. Pfau and Plattner have identified methyl-acetyl-cyclohexene in the essential oil of Atlas cedar-wood. They have also separated two monocyclic sesquiterpene ketones, $C_{15}H_{22}O_1$ (α - and γ -atlantone) and a monocyclic ketone of the formula $C_{15}H_{22}O_2$. The work of Rao and Subramanian on the oil of the leaves of *Clausena Wildenowii* is described. A body, α -clausenane $C_{15}H_{22}O$, is described. It is a colourless, lemon-scented liquid, boiling at 177° at 684 mm., of specific gravity 0.912 at 30°, and refractive index 1.4752 at 30°. The oil also contains di- α -clausenane $C_{20}H_{32}O_2$, and β -clausenane $C_{15}H_{24}O$.

BERGAMOT OIL.—Späth and Socias towards the end of 1934 announced the discovery of a new compound in bergamot oil. It is a solid substance, of the formula $C_{11}H_{16}O_4$, melting at 280°-282°, to which the name bergaptol has been given. By methylating it, using diazomethane, bergaptene is obtained. Cain and Lynn have obtained from the fresh leaves of *Ledum Columbianum*, an essential oil having the following characters:—Specific gravity, 0.911 at 25°; specific rotation, +9.13°; refractive index, 1.4954; acid value, 0.7; ester value, 17.8, equivalent to 6.24 per cent. of esters calculated as bornyl acetate; ester value after acetylation, 79.56; and methoxy number, 10.73. It contains *l*-pinene, *l*-borneol, bornyl acetate, ledum camphor, phellandrene, caryophyllene, a solid body columbenol, probably of the formula $C_{15}H_{22}O$, carvacrol, and probably azulene. The flowers of the same plant yield an oil of specific gravity, 1.0182 at 20°; specific rotation, -8.41°; refractive index, 1.5119; acid value, 7.27; ester value, 23.61; and ester value after acetylation, 128.65. The same chemists have also investigated the essential oils from the leaves and flowers of *Ledum Groenlandicum*. The oils had the following characters:—

	Leaf oil	Flower oil
Specific gravity at 25°	0.9031	1.0332
Specific rotation	+1.36°	—
Refractive index	1.4900	1.5102
Acid value	2.46	28.03
Ester value	28.81	77.97
Ester value after acetylation ..	97.2	161.31

The leaf oil contains borneol, bornyl acetate, phellandrene, caryophyllene, ledum camphor, carvacrol and probably azulene. The flower oil is richer in esters and alcohols than the leaf oil.

OIL OF LIQUIDAMBAR FORMOSANA.—A new oil reported on is that of *Liquidambar formosana*. Kajaku, Nonoe and Hata obtained 0.05 per cent. from the leaves of this plant of an aromatic oil having the following characters:—Specific gravity at 21°, 0.8607; specific rotation, -10.6°; refractive index, 1.4731 at 21°; acid value, 0.46; saponification value, 0.92; saponification value after acetylation, 19.2. It contains 88 per cent. of terpenes consisting of *l*- α -pinene, camphene, β -pinene, diphitene, terpinene, and phellandrene. Cymol, terpineol, caryophyllene, cadinene, benihol and cadinol are also present, and possibly a new terpene, which has been provisionally named liquidene.

A CASE of bee-ointment dermatitis is reported in "The British Medical Journal" of May 18.

"PUNCH" Summer Number is now on sale. In addition to the usual literary pages it contains sixteen full pages in colour and, as is usual, provides an entertaining publication for holiday reading.

NON SEQUITUR.—"The lessee of the house has been charged with drug trafficking and the police are hot on the track of the missing men. 'Oeuvre' says: 'It is an incontestable success for the common front established in London and Stresa.'"—"Worcester Evening News."

Anisometropia

STRICTLY speaking, any difference in the refractive error of a pair of eyes can be classified as anisometropia, but differences of 1 D. or less do not usually present any special problem for consideration under this head, and can generally be ignored. Although cases are rare in which refractive error is exactly the same in each eye, the difference in refraction, when a full correction is given, will not produce asthenopia or interference with fusion unless there is a difference of 1 D. or 2 D. When prescribing, therefore, low degrees of anisometropia do not require special consideration, but in cases of high anisometropia exceptional care is necessary if comfort is to be assured. If the subject has previously worn an unequal correction without discomfort, it is safe to assume that a full correction will be tolerated if the prescription does not embody a much greater difference than is found in the old correction. If a similar correction has never been worn, or if the patient has never used glasses at all, the treatment depends on the age of the subject and the amount of the difference in the refractive error. Young people should always be given the lenses which give the best vision, but over the age of thirty years it is often necessary to modify the lens for the weaker eye, older eyes being less adaptable to changed conditions.

The Chief Trouble

caused by, or rather arising from, the correction of anisometropia is the confusion resulting from the difference in the size of the two images. Another major trouble is asthenopia due to unequal accommodation. By giving a partial correction for the weaker eye the respective images may be made more equal in size, but the lens power should be gradually increased at intervals until the full correction is worn, of the highest power that can be tolerated with comfort. If asthenopia is present before glasses have been tried it may be the result of unequal accommodation, and the glasses, by making this unequal accommodative effort unnecessary, will remove the headaches. On the other hand, trouble is sometimes caused through the persistence of unequal accommodative effort after such effort has been rendered unnecessary by the equalisation of the refraction with lenses. Here again the best plan is a partial correction for the weaker eye, to be increased later. Careful centring of the lenses will do much to minimise distortion and confusion due to prismatic effects, and the effects of oblique cylinders, and even non-presbyopes will often benefit by having separate spectacles for distance and reading, made with different pupillary distances. As far as possible, a full correction should be given to the dominant eye. Before prescribing the near point of each eye should be measured, with the correction in place, and if it is not the same for each eye the eyes should be re-tested. There may be uncorrected latent hyperopia, or if the patient be myopic a wrong result may be due to accommodation during the test. From the point of view of ensuring comfort, one can usually be safe by partially correcting the weaker eye, but in all cases it is essential that an attempt should be made to get acceptance of the full correction as early as possible, so that too much work is not required from the better eye. The foregoing remarks are largely generalisations and each case needs consideration on its own merits.

Difficulties with Bifocals

Great care must be taken in the making of bifocals for anisometropes. The writer prefers not to recommend bifocals in these cases, but when such lenses are requested it is necessary to introduce compensating factors in the reading segments to neutralise the prismatic effects caused by the difference in the powers of the distance glasses. For instance, with fused bifocal lenses, if a large diameter segment is placed in the right lens, and a small one in the left, the line of vision might pass through the optical centre of the left segment, and be 15 millimetres from the optical centre of the right reading addition. With a +2.0 D. addition this would be equivalent to 3 prism diopters base down before the right eye. This is an extreme example, and there is the objection that the segments would appear odd to an observer. Another, and perhaps a better, way is to use segments of similar size but slightly different in shape. By using D-shaped segments it is possible to give base up in one eye and down in the other.—S. H. L. (20/12).



Imperial News

DEATH.—Mr. Frank H. Spearman, a well-known Montreal pharmacist, died on December 27 in the Royal Victoria Hospital. He was fifty-nine years of age, and had carried on a pharmacy in the city for twenty-eight years.

INCREASED PROFIT.—Net profit of Vancouver Western Drug Co. increased from \$5,408 for 1933 to \$9,765 for the year ended May 31, 1934. No additional stores were added to the company's retail chain, which operates in Vancouver, New Westminster and Victoria, during the last fiscal year, but since then two more drug stores have been opened. Since May 31, it is understood that the improvement noted at that time has been continued.

A BILL to come before the Canadian House of Commons shortly specifically prohibits the holding out or advertising of any medicine, appliance or treatment as being effective for the cure of Bright's Disease, consumption, cancer, diabetes, epilepsy, fits, hernia and other common ailments by any person who is not a qualified medical practitioner. The Bill will be combated by the Health Practitioners' Association, which was formed recently at London, Ontario, for that purpose, and "to protect the interests of its members; to educate the public in the laws of health and progressive methods of treatment and to safeguard the interests of its members against medical class legislation of a discriminating character."

THE LATE Mr. James Mattinson, secretary of the Wholesale Druggists' Association of Canada, who died on November 4 at his residence, 576 Cote St. Antoine Road, Westmount, Quebec, was born at Bourg Louis, Portneuf County. He graduated as a chemist from McGill University, and in 1866 commenced his career in the laboratory of George Martin, manufacturer of photographic chemicals, Montreal. The following year he joined the staff of Kerry Brothers & Grathern. In 1892 he was appointed manager of the London, Ontario, branch of Kerry, Watson & Co., and held this position until 1906, when the National Drug & Chemical Co. was formed and he was transferred to Montreal as inspector and director of the new concern. Later he became manager of Laurentian Laboratories, retiring from that post six years ago.

"OWN-NAME" PHARMACY.—The contention of the Pharmaceutical Association of the Province of Quebec that a drug store must be carried on under the name of the proprietor and not under a business name was confirmed by a recent judgment of Chief Justice Archambault of the Circuit Court, in which Mr. J. Goldapple was ordered to pay a fine of \$50 to the Association. Defendant, who carried on business under the name of Atwater Pharmacy, pleaded that his business was registered and his own name appeared as proprietor thereof. It was explained to the court that the object of the law is to inform customers not only that they are dealing with a licensed druggist, but also with the individual so qualified. This reason the Court considered a just one, and judgment was rendered ordering the defendant to pay the fine.

NEED OF QUININE IN INDIA.—The Karachi Indian Merchants' Association has addressed the Government of Bombay, urging the production of quinine in the Bombay Presidency by enlarging the area of cinchona plantation and making it available in sufficient quantities and at cheap prices to the public. The Association points out that there are nearly 100,000,000 persons suffering from malaria in India, of whom only one-tenth can hope to undergo treatment of some kind. The need of reducing the price of quinine and making India self-sufficient in the matter of quinine supply was urged by the Royal Agricultural Commission, and the Association thinks that immediate steps should be taken by the Provincial Government also in this matter.

CONTINUOUS PERSONAL SUPERVISION.—At Pietersburg, Transvaal, recently, J. Hirschman was charged with being absent from his shop without leaving a qualified chemist in charge. Defendant declared that when he left his shop he left instructions that no prescriptions were to be made up in the absence of himself and his brother, who is also a qualified chemist. For the defence it was argued that by continuous supervision was meant the supervision of the sale of articles mentioned in the

Dental and Pharmacy Act—poisons and habit-forming drugs—and that no chemist was required to supervise the sale of articles which could be sold by any assistant in grocery or other stores. The magistrate, in discharging the accused, said that if continuous supervision meant that a qualified man could never leave his pharmacy it would be impossible to carry this out, as every chemist was continually required to leave his pharmacy, and that it would be unreasonable to close his pharmacy every time he went out for any purpose whatever. The evidence further showed that there was personal supervision of the making up of prescriptions on the day in respect of which accused had been charged.

BENGAL PHARMACEUTICAL CONFERENCE.—The first annual conference of the Bengal Pharmaceutical Association was held in Calcutta in the second week of April under the presidency of Mr. H. Cooper, Ph.C. Mr. Premanand Das, in his address as chairman of the reception committee, mentioned the useful work done by the Association's delegation at Delhi when they placed their programme before the All-India Medical Conference. The Association, he stated, planned to bring together on a common platform manufacturers, wholesalers, importers, chemists and druggists and compounders. The Association intended to start a journal of its own. Mr. Cooper paid a warm tribute to Lieut.-Colonel Chopra, the retiring chairman. He then drew the attention of the conference to the recommendation of the Drugs Inquiry Committee that in the transitional stage, when a sufficient number of qualified pharmacists is not available, persons engaged in continuous practice in the profession for five years may be registered as pharmacists notwithstanding the absence of the requisite qualifications.

NATAL PHARMACISTS AND BAZAAR TRADING.—Intense opposition is threatened by bazaars to a motion put forward in the Natal Provincial Council asking the Union Government to provide legislation restricting the sale of medicines to qualified chemists. The sale of medicines by general dealers has been subject to strong condemnation by chemists for some time past. Great laxity exists in the handling and sale of poisons in South Africa. It is stated that a great evil exists in the sale of highly alcoholic medicines by stores possessing patent-medicine licences. Prior to the passing of the Medical, Dental and Pharmacy Act of 1928 the sale of drugs was restricted to chemists, except in the case of articles in common domestic use, such as sodium bicarbonate, cream of tartar and Epsom salts. The compounding of medicines for human beings was also restricted to chemists. At the present time no one but a chemist can sell proprietary articles containing poisons unless he is more than five miles from the nearest chemist. This stipulation of the Act is not being enforced in the country districts and smaller towns. Other traders than chemists can obtain licences to sell poisons for agricultural, horticultural, veterinary and cleansing purposes. Chemists had never objected to firms catering specially for the farming community having this right; but it had not been the intention of the Act that licences should be granted to general traders for the free sale of such preparations as lysol and disinfectants generally.

At the Counter

THE following note was received by a Belfast reader:—Anaseed, cholouridine, gliserene, hipp of wine, syrup squills, paupoic, 6d. worth.

CHEAP AT THE PRICE.—From Newcastle (Staffs) comes the following singular request:—2d. sweet nighta for making Children go to sleep at night in a Bottle.

WHAT WOULD YOU GIVE?—"Please give me 6 pence squibbs and Cylonda." Syrup of squill and chlorodyne supplied by a Portstewart reader.

IN THE DORIC.—"Gie me a heidache poother for oor Jock. He gangs up tae see the dugs runnin an aye gits a sair heid."



Poisons Board Report

Various Points of View by Representative Experts—III

(Concluded from the C. & D., June 22, p. 759)

By James Grier, M.Sc., Ph.C.

THE article on this subject which you have presented to your readers is so comprehensive and illuminating that little remains to be said after digesting it. One might note how the Poisons List differs from the draft List published in August 1934. "Substances" excluded from Part I or the First Schedule are areca and hydrastis alkaloids, narceine, narcotine, peltierine, sparteine, emetine bismuth iodide, colocynth pulp and extracts, oils of rue and tansy, bromoform, chlorbutol, phenazone, oxyquinoline, iodine (from both parts), chromic acid, hydrobromic acid, polymers of formaldehyde, silver nitrate, and zinc chloride (from both parts). The following have been transferred from Part I to Part II:—Hydrofluoric acid and certain fluorides, nitrobenzene, and sulphuric acid, whereas carbon tetrachloride has been transferred to Part I. Additions to Part I are codeine, ethylmorphine and all the substances enumerated in Part III of the Dangerous Drugs Act, cocaine substitute and two ureide hypnotics, allylisopropylacetylurea and phenylethylglycocollurea, salts and derivatives.

The most striking change is the inclusion of mercuric chloride, iodide and organic compounds of mercury in Part II. These were included in Part I of the previous draft List, and they are still Part I poisons to which the special restrictions apply, as their position in the First Schedule indicates. The position is explained in Section 43 of the report, but it seems a cumbersome way of dealing with it and not altogether logical. Seeing that arsenic oxides, arsenites and arsenates occur in both parts of the Schedule, there seems no reason why an exception should be made in the case of these potent mercurials, especially as the Fourth Schedule indicates the forms and the special uses of the forms of these substances which may be sold by listed sellers of Part II poisons. In Section 16 of the report are given the reasons which led to the transference of carbon tetrachloride from Part II to Part I, viz., to "ensure that the retail sale of medicinal carbon tetrachloride is restricted to authorised sellers of poisons." Surely the same argument applies to the retail sale of medicinal mercuric chloride and organic mercurials like mercurochrome. Organic compounds of arsenic and antimony are of course in Part I. Nicotine seems to be the only other substance so treated, but nicotine is hardly used medicinally and could be omitted from the First Schedule.

By Arthur Mortimer

THE report of the Poisons Board is very helpful in showing how certain decisions have been reached by its members. The recommended Rules and Poisons List require careful consideration in order to be clearly understood. In the List itself, wherever possible, ambiguity has been removed and "omnibus" clauses have not been used. Though the List appears to be of considerable length, it is not much longer than that at present in use. There are several important additions in both Part I and Part II, and several anomalies of the current List have been obviated.

In the interest of the public, stringent and comprehensive regulations are necessary, and it is gratifying that the suggestions now made are a great improvement on the draft which was submitted last summer. An attempt has been made to grant exemption for articles used outside pharmacy and medicine containing a poison which is not in any way dangerous to the public. There are, however, some substances which have to be labelled "Poison," such as santonin, on which a cautionary label might well have been used instead of the word "Poison." It is as well that machine-spread plasters do not require the signature of the purchaser.

The prevention of the use of strychnine for vermin killers may cause a certain amount of hardship, but the Board states they are advised that the interests of agriculture in no way require the use of strychnine for the destruction of vermin, and in fact it is preferable that other substances should be employed for the purpose.

The use of cautionary words other than "Poison" is of the utmost value. The primary object of the Poisons List and Rules is the protection of human life, and it will certainly be considered by many manufacturers of poisons, where poisons are dealt with on a big scale, that certain details connected with labelling, etc., are an unnecessary restriction to trade. It is not that the manufacturer or the wholesaler has any objection to labelling, but in so many cases there is no need for the various packages to be labelled when one comprehensive labelling ought to be sufficient. Whatever permission is given under Section 20 of the Act for wholesale trade or for the supply of poisons for the purpose of trade or business, it should not refer to retail shops. All retail sales should carry with them the same obligations.

One can only admire the thoroughness with which the work has been accomplished and congratulate the secretariat on their understanding of a very complicated subject. When there has been more time to consider the report in greater detail, it is possible that other points may be found to commend or find fault with, but after one reading there seems to be very little calling for serious criticism.

National Pharmaceutical Union

Executive Meeting

MEETINGS of the Executives of the National Pharmaceutical Union and Chemists' Defence Association were held at 4 and 5 Queen Square, London, W.C.1, on June 20, Mr. S. J. Stearn in the chair.

N.P.U. CONFERENCE

The Executive decided to call a conference of the branches in October. It was decided that one representative only from a branch should attend, but that each representative should have voting power according to the number of members of the N.P.U. in his branch.

DISTRICT MEETINGS

The Executive decided that constituency meetings should be held during the winter session at the following centres:—Preston, Manchester, Liverpool, Newcastle, Leeds, Northampton, Brighton, Bristol, Sheffield, Bangor, Cardiff, Birmingham, Derby, Ipswich, Southampton, London.

CLEARING HOUSE

The secretary reported that the June clearance was the largest yet made, and that it had been effected within the specified period in spite of the fact that it included a bank holiday.

KING GEORGE'S JUBILEE TRUST

A letter of thanks from H.R.H. the Prince of Wales was received for the contribution made by the N.P.U. to the fund.

C.D.A. Matters

The secretary reported that there were fifteen cases outstanding since the last meeting of the directors, one of which might be considered closed. Eight new cases had arisen during the month, of which six had been settled, as follows:—Clothing damaged by acid leaking from faulty bottle; claim settled by payment of £4 14s. 6d. Glass panel in door broken by members' porter; claim settled by payment of £2 5s. Window broken by cycling errand-boy; claim settled by payment of £3 4s. Injuries caused by fall on shop floor; claim settled by payment of £1 1s. Damage to motor cycle caused by cycling errand boy; claim settled by payment of £3. Damage to car caused by cycling errand boy; claim settled by payment of £4.



Pharmaceutical Society of Northern Ireland

Council Meeting

THE monthly meeting of the Council of the Pharmaceutical Society of Northern Ireland was held on June 21 in the Society's headquarters, 73 University Street, Belfast, the president (Mr. Fred Storey) in the chair. There were present also Messrs. W. S. Taylor (vice-president), R. I. Edwards, J. E. Connor, H. F. Moore, S. H. Forrest, W. C. Tate, J. T. Nicholl, S. S. Badger, Charles Abernethy, W. Martin, Dr. S. E. Acheson and Professor Mayrs. An apology for absence was received from Mr. J. F. Grimes. Mr. D. L. Kirkpatrick (secretary) was in attendance.

CONGRATULATIONS TO THE LORD MAYOR

The Council passed a resolution congratulating the Lord Mayor of Belfast (Sir Crawford McCullagh) on the dignity of a baronetcy conferred on him by the King.

THE PRESIDENT, in moving the resolution, said the Lord Mayor had done a tremendous lot for the city. He had filled the chair eight times, and when he was approached to give a reception to the Pharmaceutical Conference he most willingly agreed to do so.

Mr. W. S. TAYLOR seconded the resolution, which was agreed to amid applause.

DEATH

THE PRESIDENT expressed the sympathy of the Council with Mr. G. W. T. McCann, a former member of the Council, on the death of his mother at the age of ninety-one.

APPLICATION REFUSED

An application from a lady who stated she did not wish to serve her apprenticeship and asking for the return of the registration fee of £3 3s. was read.

THE SECRETARY said that the applicant was on the Register and had got her certificate.

The Council declined to accede to the request, THE PRESIDENT saying they had ruled similarly in other cases.

CORRESPONDENCE

THE SECRETARY reported that the Fairchild scholarship examination had been held in the Society's rooms on June 13. There was one candidate. A letter was received from the secretary to the trustees thanking the Society for the use of the rooms.

A letter was read from the Minister of Home Affairs withdrawing the authority granted by the D.D.A. Regulations to Dr. Edward McAlpine, Tempo, co. Fermanagh, to be in possession of certain drugs.

THE PRESIDENT said that the notice of the withdrawal would also be given in the "Gazette."

Thanks of the Council were directed to be sent to the Publications Committee of the Pharmaceutical Press for the gift for the library (per Mr. W. K. Fitch) of the "Extra Pharmacopœia" and the "Pharmaceutical Pocket Book."

JUNE EXAMINATIONS

THE SECRETARY announced the results of the June examinations. He said that in the final Part II there were thirty-six candidates, twenty-eight of whom were new. Out of the lot only six got through. Five of those who did really well otherwise were "stuck" because in place of dividing $\frac{1}{2}$ gr. of iodide of arsenic into fifteen pills they put $\frac{1}{2}$ gr. into each pill, and the examiners turned them down. Seventy-three candidates sat in Part I, and twenty-four got through.

In reply to a question THE SECRETARY said that in the iodide of arsenic question it was a straight prescription.

On the motion of MR. MARTIN, seconded by MR. BADGER, the report on the examinations was adopted.

EDUCATION COMMITTEE

The Education Committee reported that Robert Hastings, David S. Greenaway and William James Taylor were recommended for the certificate of apprentice to a pharmaceutical chemist.

On the motion of MR. ABERNETHY, seconded by MR. EDWARDS, the report was adopted.

THE PRESIDENT referred to the question of adopting the new British syllabus, in which zoology Part 1 and biology had been included, and which had been before the Council on previous occasions. He was under the impression that, in view of the changes in the last Pharmacopœia, it would be necessary to include both these subjects and at the same time reduce the standard of botany. After discussion it was agreed to obtain copies of the syllabus and discuss it at a later meeting.

On the motion of THE PRESIDENT, it was decided to have a board placed in the Society's headquarters with the names and year of each gold medallist.

Annual Report on Administration

The report of the Ministry of Home Affairs on pharmacy administration in Northern Ireland for the year ended December 31, 1934, was read at the June meeting of the Council of the Pharmaceutical Society of Northern Ireland. It was as follows:—

REGISTRATION

The number of names on the Registers on December 31, 1932, 1933 and 1934, respectively, was as follows:—

	1932	1933	1934
Pharmaceutical chemists	794	817	856
Superintendents of bodies corporate (Ph.C.)	56	59	66
Chemists and druggists	11	11	11
Registered druggists	140	140	140
Certified assistants	8	6	6
Apprentices	496	546	558

Thirty-three apprentices qualified by examination as pharmaceutical chemists, and registered as such during the year. In addition, six persons availed themselves of the provisions of Section 7 (1) (a) of the Pharmacy and Poisons Act (Northern Ireland), 1925, and were registered as pharmaceutical chemists, and one person was registered as a chemist and druggist.

ISSUE OF LICENCES

The number of licences issued in respect of the years ended December 31, 1932, 1933 and 1934, respectively, was as follows:—

	1932	1933	1934
Pharmaceutical chemists	428	444	455
Chemists and druggists	1	—	—
Registered druggists	46	43	42

Of the total number of pharmaceutical chemists' licences seventy-one were issued to bodies corporate and eight to executors of deceased pharmaceutical chemists.

Three of the registered druggists' licences were issued to the executors of deceased registered druggists.

AGRICULTURAL AND HORTICULTURAL POISONS LICENCES

On December 31, 1934, there were 149 agricultural poison licences in force, compared with 138 on December 31, 1933.

INSPECTIONS

During the year under review the Pharmacy Inspector paid 1,267 visits of inspection to pharmaceutical chemists, chemists and druggists, and registered druggists; 153 visits to agricultural poison licence holders; 142 visits to methylated spirit retailers other than pharmaceutical chemists, chemists and druggists, and registered druggists; and sixty-four visits to traders suspected of selling poisons. In addition numerous visits were paid to street markets and fairs.

PROSECUTIONS

No prosecutions under the Pharmacy and Poisons Acts were taken during the year, but in several cases where minor breaches of the law were detected these were dealt with satisfactorily.



Dr. Crossley-Holland's Conference Address

The Relationship of Pharmacy to Medicine

THE subject which I have chosen for the chairman's address on the occasion of the seventy-second annual meeting of the British Pharmaceutical Conference is: "The Relationship of Pharmacy to Medicine." The import of the word "pharmacy" requires no definition in this audience, but it will be well to have before us a clear understanding of the word "medicine." Medicine means for our purpose the practice of medicine—and not a mere medication: medicine in the popular meaning of the term connotes drugs—a meaning wide of our intention, as medicinal drugs occupy a comparatively small and declining place in the practice of medicine. As a member of both the medical and pharmaceutical professions I welcome this occasion to place before my fellow members of Conference some considerations of the present relationship of the two professions—together with some suggestions which I trust may prove of constructive value and assistance in welding more closely those interests which ought to be identified with physicians and pharmacists alike.

At the outset it must be admitted that the relations between the two professions—or if you will between the practitioners of different yet related functions within the practice of medicine—are not of the happiest; in fact the situation is unparalleled in any other country. There is not—quite frankly—the co-operation which a related identity of purpose makes desirable. It is a matter of history that the evolution of the pharmacist is based upon the old-time quarrel between the doctor and the pharmacist's prototype—the apothecary. The spirit of antagonism which led to their quarrel most unhappily did not entirely disappear; and in this country there has never been a real *rapprochement* and cordial understanding between medicine and pharmacy. The spirit of antagonism is not now of an active aggressive character; rather does it take the form of an indifference by which points of contact between the two professions are few. A very brief *résumé* of the origin and nature of this quarrel to which I allude will enable us to understand perhaps one of the chief reasons why the two professions have hitherto failed to understand the aims and intentions each of the other, to the loss of both.

Three Hundred Years Ago

About three hundred years ago medical interests were represented by three classes of persons, first, the physician, or prescriber of medicine; secondly, the apothecary, or dispenser of medicines (who was also often an assistant to the physician); and, thirdly, the vendor of drugs (or chemist and druggist as he became known some years afterwards). About the year 1690 the apothecaries began to usurp the rights of the physicians by prescribing on their own account, thus becoming hybrid professional men in their endeavour to make the best of both worlds. The physicians retaliated in 1697 by opening establishments for dispensing prescriptions. These establishments did not continue for very long, and physicians were only too pleased to encourage the dispensing of their prescriptions by chemists and druggists, who were shedding the grosser accompaniments of their calling, which then began to assume a professional aspect under the patronage of the physicians.

Now the apothecary looked with extreme disfavour upon the chemist and druggist—regarding him as the usurper of his dispensing rights, evidently overlooking the fact that he himself had so lately attempted to usurp the physicians' rights. In time, through the favour of King James, who granted them a Royal Charter, the apothecaries became medical men. Due to the fact that the apothecaries largely outnumbered the physicians, they became the medical backbone or general practitioners of the country. This change from apothecary to medical man was sufficiently protracted to allow the apothecary's resentment against the chemist and druggist to take a

deep hold, and although the charges of ignorance by the apothecary against the chemist and druggist gradually ceased, no real *rapprochement* has ever taken place between them.

The physicians, as distinct from the apothecaries, who had become medical men, did not establish any proper professional or social contact with the chemist and druggist. Their experiences through the apothecary invading their domain evidently made them fear that in time the chemist and druggist might do so too—and may they not have determined "never again?" Thus the heritage of the practice of pharmacy from the practice of medicine contains the elements of a former dislike and distrust. To-day, as I have already submitted, the old spirit of antagonism is not of an active character—rather has it settled down into the form of indifference to, or non-recognition of, common interests. As points of contact between the two professions increase through more equal education, training, attainment and the like, the indifference may well change to better understanding and fuller recognition.

Education

Perhaps the greatest factor in this connection is education. I am a member of a French university in which medicine and pharmacy constitute a mixed faculty; in this faculty undergraduates mix freely for the first three years—and sometimes longer—of their professional studies with the result that there is a mutual respect for, and understanding of, the goal aimed at by those who will ultimately become doctors and those who will become pharmacists. Thus from the outset of their professional life there is daily personal contact between the embryo doctor and the embryo pharmacist—a contact which continues to the end of practice. It is much to be regretted that such a state of affairs does not obtain in Great Britain, but a beginning towards this desirable end has been made by the raising of pharmacy to university recognition and status. Pharmacy has hitherto been but somewhat indefinitely—in the official sense—associated with medicine. By means of the mixed faculty it would be definitely brought within it as an integral part whilst maintaining its individuality and developing its own particular usefulness.

A former recent chairman of Conference, Mr. R. R. Bennett, in his address called the attention of Conference to the changing foundations of *materia medica* consequent upon the changes that were rapidly taking place in the foundations of medical treatment. This aspect is of immense importance to pharmacists, as it is becoming more and more apparent that drugs and galenicals are becoming less and less of importance in the practice of medicine. It would almost appear that drugs are used for the control of symptoms whilst contemporary medical effort is being whole-heartedly bent towards methods—which need little assistance from drugs—in the elimination of the causes of disease. It would I think be true to say that the whole attitude of medicine towards disease has undergone marked change during the last two decades—a change based upon the vastly better knowledge and understanding of physiological and pathological phenomena due to the intensive research of the post-war years. One of the results which flows from this knowledge is that better diagnoses can now be made, to the supplanting of reliance upon less complete knowledge and a patient's reaction to drugs; when diagnostic methods were empiric, treatment was empiric too. Certain drugs—veritable standards of medical practice—such as those having a well-defined action, iodine, calcium and the like will always be with us, together with the medicaments which represent the constituents necessary for the correction of abnormal physiological function in the human body. We may add certain endocrine and synthetic products of the controlling class, e.g., hypnotics, and other useful therapeutic agents; also those substances incidental to the technique of surgery; and yet some others; but the list is a less lengthy one than formerly, in spite of the fact that divers multiplications of names for synthetics having identical formulæ would make it appear longer. The activities of medicine will be



directed more to the attainment of exact diagnosis and the perfecting of clinical methods than to the ingestion of drugs. Such a condition of affairs, the nearness of which seems to be unmistakably indicated, is of the utmost importance to those who engage in the practice of pharmacy. Pharmacy, as many of us have known it, has experienced serious and fundamental changes within the last two or three decades. Many, if not the majority of the drugs and galenicals of our earlier days have practically ceased to be, and are either obsolete or obsolescent, both as to medical use and public demand.

This decline in the demand for drugs and galenicals bears a peculiar relationship to the trend of medical thought, progress and practice. It is probably true to say that pharmacy reached its peak in this connection when the practice of medicine was almost wholly curative in intent, and preventive medicine was in its infancy. When the idea of preventive medicine became translated with rapid strides into practice, empiricism in its widest sense in medicine—reflected in the practice of pharmacy—began to decline. The accepted principles of hygiene began to affect the demand for curatives both in medicine and pharmacy.

Last year Sir Hilton Young, the Minister of Health, gave a review of the nation's health in the House of Commons. In commenting upon the improvement in the national health for thirty-four years past, he pointed out that only one person dies of diseases to-day that killed from four to twenty-two persons in 1900. Forty thousand more children who would have been doomed to die within twelve months in 1900 are to-day surviving. Whooping-cough killed four persons in 1900 for one it kills to-day. Scarlet fever accounts for only one death where it used to kill seven. Diphtheria claims only one death now for every four it claimed in 1900. Typhoid fever kills only one person, as against twenty-two killed in the same year. Tuberculosis which killed one hundred persons now kills seventy-eight. The general death rate has been reduced by 10 per cent. These few facts are sufficient to show that hygienic principles and collateral measures have reduced the demand upon the erstwhile therapeutic measures which pharmacy supplied. Of course it must not be supposed that the requirements of hygiene—as represented by antiseptics and the other accompaniments of hygienic technique—have not held an interest for the practice of pharmacy, but the fact remains that the newer practice of preventive medicine has affected pharmacy, and the newer conceptions in medical practice threaten to have a much greater effect to-day.

It would appear from what I have already said, that like the learned counsel in *Pickwick*, I have taken a "descent into the dismal." Such I assure you is not the case, I am stating facts as they are, and shall presently make some observations which I trust will be of a practical and utilitarian nature. Our object as practitioners of the art and science of pharmacy is to inquire how far we can enter into the picture of the newer conception of the practice of medicine, in the realisation that some of our former usefulness and activities in this connection have passed away in the rapid march of medical progress.

Preparers and Compounders

The practice of pharmacy hitherto, apart from that aspect of it which relates directly to the public, has been almost entirely concerned with the prescriptions of a duly qualified medical practitioner. In other words we have hitherto entered the picture of medical practice as merely skilled preparers and compounders of those medicaments which are prescribed for the patient—a truly important, but very small part of the practice of medicine. And we have hitherto played no very important part in medicine outside this function. Of course within our own sphere we have, through the valuable and original work of the research papers contributed to the British Pharmaceutical Conference and in other important ways, made available for the medical practitioner, in acceptable and active form, pharmaceutical products of real therapeutic worth through which he can realise his intentions, so far as they concern therapeutics, via pharmacy. Pharmacy has of course rendered services to medicine other than these, but the continuing common denominator of medicine and pharmacy down the years to the present time has been the prescription and that which centres around it.

I trust that I may not be misunderstood by my medical *confrères* when, speaking as a pharmacist with an intimate acquaintance of both medicine and pharmacy, I submit to this Conference that the hour has come when—not the prescription

but the patient should be the common denominator. I do not for one moment suggest that the pharmacist should play any part in the treatment of the patient: this activity cannot be undertaken with proper understanding by anyone other than the qualified medical practitioner, who is a trained clinician. But I do submit that short of this activity—which is so properly, particularly and exclusively the province of the doctor—the pharmacist of to-day either is, or is easily capable of becoming, of very real and valuable assistance to the doctor at points in the diagnosis of disease, and during its treatment.

At this juncture I would, as chairman of the British Pharmaceutical Conference, pay a tribute to the Pharmaceutical Society whose collective vision and enterprise has lately translated into action what the British Pharmaceutical Conference, from the nature of its work, has ever held in spirit and vision. By the establishment of its Pharmacological Laboratories, the inception of a diploma in biochemical analysis (for which "pathological chemistry" would have been a much truer title) and the inclusion of physiology as a subject in its qualifying examination, the Society is taking us nearer to a better understanding with medicine.

The subject of physiology or a knowledge of the normal functions of the body is an essential precedent to the study and understanding of pharmacology, or the action of therapeutic substances in the body. In order to pursue this important latter study, an acquaintance with the subject of human anatomy is almost equally necessary. The degree of knowledge of each of these subjects need only be elementary for the purposes which we still have to consider, and not nearly so high or specialised as that demanded from those whose province it is to practise medicine. I do not think that in these days doctors would regard with an apprehensive suspicion the acquirement by the pharmacist of this knowledge, because it would not approach closely the point where clinical medical study begins—the differentiation point, or division point, as it were, between medicine and pharmacy in respect to these subjects. Once assure the doctor that there is no intention whatever to trespass on his own exclusive ground, I believe that he would welcome any steps taken in pharmacy intended to be of eventual assistance to himself.

Progress and its Limitation

It would be idle to say that pharmacy has made no progress in recent years. It has made very real progress; yet there has been but little extension of the relationship between physicians and pharmacists. It would almost appear that conventional pharmacy has led us as far as it can in this connection. The application of what this progress offers finds its field chiefly in institutional pharmacy and benefits the comparative few. The general practitioner of medicine practises outside institutions—as only the distinguished few hold appointments. The general practitioner of pharmacy also practises outside institutions—thus both practise among the great public of the nation, and each is a related factor in the maintenance of national health. Despite these facts there is very little linkage—other than that of the prescription—between parts of a whole. Medicine and pharmacy are not wholly in touch with each other. If a closer relationship can be established—as I believe it can—the community will be advantaged. As medicine and pharmacy are related to one another to-day, the doctor has too much to do and the pharmacist too little. I am convinced that if pharmacy could and would offer the right kind of service to medicine it would be welcomed, and each would obtain benefit as well as the patient.

It cannot be denied that the busy practitioner of medicine would welcome easement from some of the work entailed both in making a correct diagnosis and from the various tests which must be made during treatment if the best results are to be attained. It is true that he can and does receive assistance in obscure and difficult cases by various elaborate and costly apparatus in some institution, but it seems to me that his real need is one entailing almost daily assistance from an immediate and trained source. The day is rapidly passing when diagnosis can be considered one man's affair. It is no uncommon thing for the physician or surgeon in charge of a case in hospital or other institution, public or private, to seek before treatment aid from the radiographer, the electro-cardiographer, the biochemist, the pathologist, and several other technical experts, in addition to making his own examination of the respiratory, circulatory, nervous, and other systems. There is a rapidly



growing and altogether advantageous tendency to introduce what may be termed the refinements of diagnostic aids into general medical practice as far as may be done. The attainment of this desideratum will make yet further calls upon the practitioner's already overloaded time. Some of the diagnostic activities carried out by pathologists and others in institutions for the benefit of the patients in charge of the visiting specialists could well be carried out by the knowledgeable pharmacist outside for the benefit of the cases treated by the general practitioner, who clearly cannot send all his patients to an institution. It is not suggested that the pharmacist should become, say, a cardio-radiographer or a *post-mortem* pathologist. There is a big field of useful service for him in the day-to-day routine pathological activities of general medical practice. It would be of the greatest assistance to the doctor if he could depend upon the pharmacist to undertake the examination of body secretions and excretions, to examine pathological urine, saliva, pus and other morbid products, and occasionally faeces for the presence of occult blood; carry out blood counts, and to engage generally in the conduct of laboratory aids to diagnosis. Sheer lack of time does not allow the busy practitioner to carry out all the tests whose results he would like to have. Such assistance and service carried out correctly and promptly could profoundly affect the line of treatment. The data gained from a blood count—just to mention one example—might well indicate treatment far removed from the treatment of the common type of anaemia.

With such a service at his disposal the doctor would gladly avail himself of it, and the probability is that the examinations just mentioned, or some of them, would become routine in the case of the majority of patients. The actual tests undertaken might be numerous, and even at a very modest fee would be entirely remunerative for the pharmacist, in addition to forming a closer linkage with the doctor, and extending the professional activities of pharmacy. A small number of pharmacists have already equipped themselves with the necessary knowledge by special training or experience, but the great majority are not so equipped—although their technical training received whilst qualifying for pharmaceutical registration would enable them to acquire very readily the necessary knowledge and manipulative skill. The pharmacist is traditionally an exact worker and quick to draw the correct inference from his findings. In this work he would be merely sending his trained perception in a new and valuable direction. It seems to me that the time is near when doctors must have some competent assistance along the lines which I have endeavoured to indicate, and it is, I feel convinced, in the pharmacists' own hands to secure and hold this work, and I would submit that to neglect embracing this opportunity would be simply to let it pass into the hands of others.

Opportunities to be Seized

I would strongly advise every pharmacist to seize the opportunity at once and not merely to wait in the hope that such work will be offered to him. I am of opinion that those who bemoan the passing of professionalism in pharmacy have in their hands the means of a realisation of a wider service to medicine. The pharmacist who is in practice now must equip himself for this service. Such cannot, in the majority of cases, spare the time to take diplomas; these must be the aim of the student-pharmacist, but they can spare the time to acquire the comparatively small amount of necessary knowledge quite easily and successfully in a very little time. Pharmacists in practice would not find it necessary to aim at the elaborate knowledge inseparable from examinations in order to pursue this work successfully. This is not the occasion upon which to consider the methods by which the relevant necessary knowledge is to be acquired: but may one not hope that this aspect of the matter will be pursued by local branches?

After equipment the next practical step is for all the equipped pharmacists in any one town to inform all the doctors that they are ready and willing to undertake the necessary professional assistance. A scale of small but remunerative fees could be fixed by agreement. By means of this suggested activity a literal daily contact between the practitioners of medicine and those of pharmacy would be inception and maintained. There are already several pharmacists who have become qualified and registered practitioners of medicine, some of whom, I conceive, would be most willing to advise to this desirable practical end.

A closer professional linking, such as I have in mind, would be materially assisted by an agreed code drawn up between doctors and pharmacists—may I hope between an official medical body and representatives of the Pharmaceutical Society and the British Pharmaceutical Conference? Such an agreed code defining, *inter alia*, the functions of the doctor and functions of the pharmacist in their interrelation and collaboration in the active medical field, would not merely obliterate the remnants of traditional misunderstanding. It would cement common aims and interests in the practice of medicine—not merely those of individuals—but those upon which national well-being in the medical sense depends. Very naturally such a code would include considerations of dispensing to which I will make no further reference here.

In the past the British Pharmaceutical Conference has always been of immense service in contributing to pharmaceutical knowledge. It was alike the parent and cradle of the British Pharmaceutical Codex and it can be of corresponding and progressive service in devoting at least a part of its scientific papers to the furtherance of pharmacological, physiological, biochemical and laboratory-pathological subjects calculated to be of practical service to the pharmacist—whom we envisage as a "clinical chemist." The "Quarterly Journal of Pharmacy and Pharmacology," in its able editorial hands, provides the authoritative medium through which the progress in connection with laboratory aids to diagnosis may reach the pharmacist.

Let us not forget that the doctor of to-day is not thinking in terms of *materia medica*, but in terms of pathology even more than in terms of pharmacology. Let pharmacy therefore become equipped to embrace the opportunity of service in the new and ever-widening field. The word "pharmacy"—and its practice—must find a new and fuller embrace and definition. It must stand henceforth not merely for drugs and all that they connote, but also for the newer conception of service in and to medicine.

The approach to a further usefulness in the service of medicine must come from the pharmacist. I feel sure that the medical man has not yet realised that he is a great potential aid. There will be no cry originating from a medical Macedonia "Come and help us!" but if help is offered—with the proper safeguards and assurances—I am encouraged to think that it will be appreciatively accepted. This approach to which I have just referred should be a simultaneous one. The majority of pharmacists everywhere should be ready for early service. It is almost more a matter of individual effort and resolve than of organisation—important though that be. Pharmacy has a ready-to-hand opportunity which she can grasp to-day and hold for every day. May every member of Conference bring his brick—and lay it—to enlarge the pharmaceutical domus.

To each is given a bag of tools,
An hour-glass and a Book of Rules;
And each must build—ere his hour be done,
A Stumbling-block—or a Stepping-stone!"

"MISPLACED PHILANTHROPY."—"Ten times more valuable than spaces on hoardings," was the statement in regard to window display space by a delegate at a recent meeting of grocers. Spaces given in and on shop premises to manufacturers and advertising contractors were characterised as "misplaced philanthropy." Shop windows should be treated as silent salesmen, ever on duty to foster business if properly treated. If manufacturers wanted them for advertising purposes, they should pay, just as they pay for other forms of advertisement.

SALE OF BIOLOGICAL PRODUCTS.—The law regarding organic products recently promulgated in France provides that viruses, serums, toxins and other products for diagnostic, prophylactic and therapeutic purposes may only be sold or distributed after having been authorised by the Government, authorisation being accorded after report by the Academy of Medicine and the superior Council of Public Health. The same rule applies to injectable substances of organic origin, not chemically defined, utilised for therapeutic purposes. This authorisation may be revoked. The cost of examination for authorisation is to be paid by the applicant, the cost of control by the State. The products are to be delivered by pharmacists on prescription.



A Unique Hobby

By F. W. Reed

WITH a natural and never satiated love for reading, and especially for history and romance, and with very early opportunities for following these out, pharmacy in a country township of New Zealand with a large out district, at a period over forty years ago, consolidated it, and in the following way.

In those days, before motor cars were in use, medical men did most of their transit on horseback. As the district to which I am referring covered a length of over forty miles on either side of the medical man's residence, it will easily be understood that he might return at any hour of the day or night accompanied by a relative or neighbour of the patient, who would take back the medicine ordered. Necessarily the pharmacist must be discoverable with certainty; out of business hours he must either be at home or leave clear information as to where he could be found, and then not be too far away. In my case this tended to confirm and intensify, if that were needed, an already strong inclination to spend most leisure hours with my books. This condition of affairs, though latterly not so necessary, extended in the main throughout my thirty-eight years' devotion to pharmacy, perhaps because of the ingrained habit.

A Great Discovery

Already, a boy in England (in the 'eighties), I had read all the historical novels I could lay my hands on—some scores—including one by Dumas, "The Queen's Necklace." So different was this from all I had made acquaintance with from the pens of English authors, that I was entranced; here indeed, I thought, was historical fiction as I conceived it should be written. It was just after this that we came out to New Zealand, I being then twelve years old. During the next ten years, whenever I was able, I added one of Dumas' historical romances (in translation, be it said) to my small store of volumes. I am inclined to think one thing which helped to rivet my interest was the difficulty, in fact for long the impossibility, of obtaining any satisfactory information about the man and his works. Occasionally, then, the opportunity offered of securing a new title, but not infrequently it proved to be one of a series. Thus there was a spice of uncertainty regarding the careers of these arresting and vivid personages of history and romance, because there was no means of obtaining guidance as to the correct order of the various sequels. Naturally inclined to be methodical, I gathered up and noted for reference any small scraps of information discoverable.

I had been five years a qualified pharmacist when, in 1902, to celebrate the centenary of Dumas' birth, two admirable lives appeared in English (those of A. F. Davidson and of H. A. Spurr), while at the same time Messrs. Methuen announced a "complete edition," in English, of the romances of Dumas (of which, unfortunately, only about half appeared). For the first time I now learned that my favourite romancer had written many more works than were accessible to English readers, and moreover, in addition to romances, plays, poetry and books of travel, history, etc.

So passed the years, and busy ones; our hours were 8 a.m. to 8 p.m., and 10 p.m. on Saturdays. In 1916 I was fortunate to get into touch with the late Mr. R. S. Garnett (eldest son of Dr. Garnett of the British Museum), the greatest authority, in his day, on Dumas. He replied in most friendly way to my first letter, and invited me to write again if I cared to do so. I cared very much, as will be readily believed. Never could I adequately express how much I owe to Mr. Garnett for help of every kind. During the sixteen years which elapsed between our first exchange of correspondence and his death, I received over 330 letters from him, many of considerable length, all dealing with matters of Dumas interest.

Early in 1919 Mr. Garnett made me a present of his own copy of the rare and invaluable "Alexandre Dumas et Son Œuvre," he having purchased that of Andrew Lang, after Mr. Lang's death. Hitherto I had been content with English works and translations, but here was a work replete with the bibliographical information I so much desired, which was yet

sealed to me who had no knowledge of the French language. That could not be permitted to continue; so, with dictionaries and grammar, and the occasional aid of friends when in difficulty, I worked at translating, typing and indexing this work for my own convenience. It took all my leisure hours, reading being practically laid aside, for twelve months. Even so, I could probably not have succeeded but that so much of the material was already familiar by reason of my notes. By the time it was completed, I had a working knowledge of translating.

I was now thoroughly attracted. Since then I have rendered into English, typed, and had bound into twenty-three volumes the whole of Dumas' known signed plays, seventy-two in number (including five which have never been printed, but of which I own either the original in Dumas' hand or authentic copies made by or for M. Glinel). This matter runs to over 8,000 typed quarto pages, and with one exception these plays have never been translated into English, though adaptations of some have been staged. In addition, I have translated much in the way of articles, entire volumes, and extracts concerning the man, his life and his work, naturally restricting myself to what has not been translated.

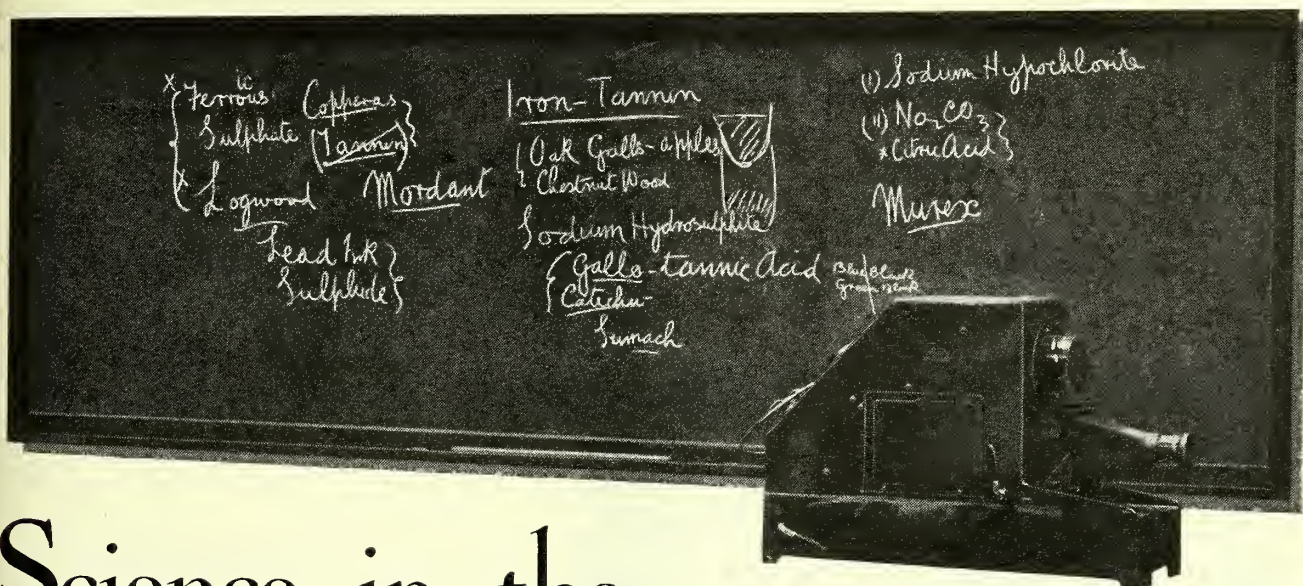
During all this time I was gathering information from many sources, and recording it. In 1928-29 I arranged much of this in two typed volumes, totalling 858 pages. At the time I had no thought of publishing, and, at Mr. Garnett's request, I presented one set to the British Museum, while my friend the French Consul for New Zealand passed another, which I had given to him, to the Bibliothèque Nationale. However, the more important of these two volumes, that devoted to a chronologically ordered array of Dumas' works, was published in 1933.

A Decoration Awarded

At the request of the late Consul for France in New Zealand—M. Paul Serre—the French Government honoured me, in 1927, with the decoration of "Officier d'Académie," and last year, at the request of the present Consul—M. Joubert—with the higher grade of "Officier de l'Instruction Publique," "for services rendered to French literature." Before his death Mr. Garnett expressed the wish that I might have his Dumas collection (over 600 volumes), and these now repose, as a separate portion, with my own.

As for the combined collection, I venture to say that it is unique. Among other items it contains about 1,000 large sheets of Dumas' own writings in his holograph. These include a complete romance, the MS. which Mr. Garnett translated as "On Board the 'Emma,'" two complete plays, articles, poems, etc. In addition, after the death of M. Glinel, I was fortunate enough, through my agent and publisher, Mr. Neuhuys, to secure a considerable number of books from that French collector's library. Six or eight of these were in his own handwriting, while others were early drafts of plays, and one comprised, in MS., what is probably the only attempt made to gather Dumas' scattered verse. To this must be added a number of Dumas' letters, some inscribed volumes, a valuable collection of first editions, both of French publishers and also of Belgian pirated printings, which latter often preceded the authentic issue, being taken from the serial appearance. It will be understood that I have but just touched upon a collection which amounts to well over 2,000 volumes.

It may be of interest to state that the collection has been donated to the Auckland Public Library after my death. Many of these volumes have interesting stories connected with them. As one instance, only last year I discovered that the first English translation (issued as "Emmanuel Philibert," Appletons, New York, 1854) of the romance "Le Page du Duc de Savoie" differs in its final 9,000 words from all other known editions (Italian—the first in this case—French, Belgian, English), whether in the original issues or in the current ones. The reason for this I was able to supply, knowing the inception of the work, and an article dealing with this possibly unique incident in Dumas' literary career appeared in No. 17 of "The Colophon" (New York, 1934).



Science in the Detection of Crime

The Work of the New Police Laboratory

WE have been privileged to see the new Police Laboratory at Hendon, and we understand the description of it below is the first to appear in any newspaper. The laboratory, which introduces new principles in the organisation of science for crime detection, is undoubtedly of such a scope as to make it harder than ever for the law-breaker to escape justice.

THERE has recently been opened at Hendon, London, N.W., the most remarkable laboratory in this country—it is built alongside the Metropolitan Police College and is intended not only to apply the latest scientific research to the detection of crime, but also to train men, who, in the course of time, will be taking their places as officers of the Metropolitan Police Force. Not that these men are to be trained as scientists, they are being taught how and where to look for material which applied science can interpret and so render assistance to further investigation. As interesting examples of this procedure the following instance may be cited: A man charged with being in unlawful possession of Indian hemp, when searched, was found to have none on his person, so the dust from his pockets was collected and when examined chemically and under a microscope sufficient evidence was forthcoming to lead to conviction. In another case a man believed to have committed a crime denied associating with the woman in question. Identification of a few hairs on the man's clothing was sufficient to obtain a verdict of "guilty." The laboratory is in charge of Dr. James Davidson, formerly of the Pathological Department of Edinburgh

University, and his staff includes Mr. Nickolls, chemist, Mr. Taylor, technical assistant, and Detective-Inspector Cuthbert, also a technical assistant.

The Teaching Department

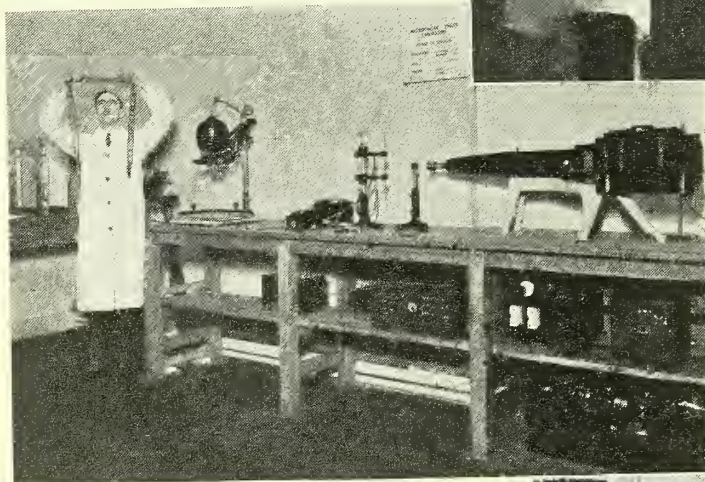
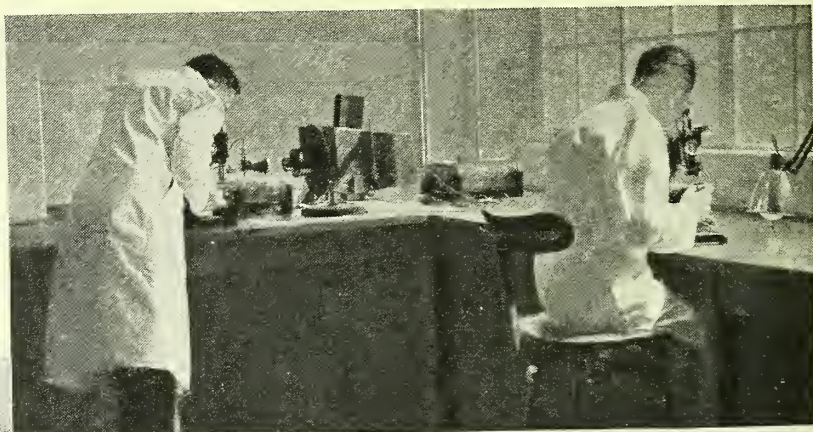
The building which houses the laboratory covers an area of 5,430 super feet, and may be said to be divided into a number of "sub-laboratories," the largest of which (31 ft. by 32½ ft.) is devoted to the training of students as referred to above. This department is fitted with benches in the usual manner of science schools, but there comparison practically ends and specialisation begins. Each student's equipment comprises an electric lamp for microscopic work, a microscope, Bunsen burner and other material required for microscopical examinations, while for demonstrations there is a large epidiascope which projects objects on to a screen, and a micro-projector for the demonstration of histological or bacteriological preparations on the screen. The course of study embodies methods of identification of blood stains, hairs, fibres of cloth, different starches and so forth, elementary toxicology, examinations of inks and documents, forensic medicine.

The Laboratories

The spacious laboratories are equipped to carry out any form of analysis, in fact the apparatus and the surroundings generally are such as the average chemist may dream of but which rarely appear in reality. In the histological and bacteriological laboratory there are hot air ovens, steriliser, autoclave paraffin vat and microtomes, one of the latter—a freezing microtome (by means of carbon dioxide)—being the most modern type available. Most of the apparatus, as will be seen from the photographs, is placed round the walls. In the centre of the laboratories is a large table and suspended from the ceiling will be noticed a number of tubes. These carry gas, electric power,

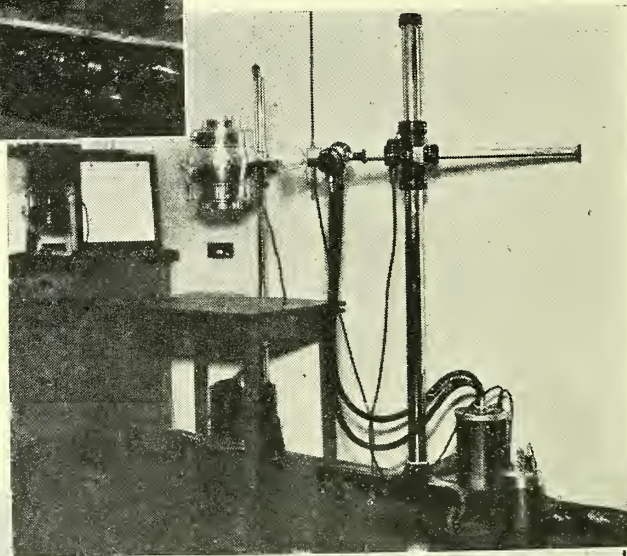


The New
POLICE
LABORATORY
at Hendon

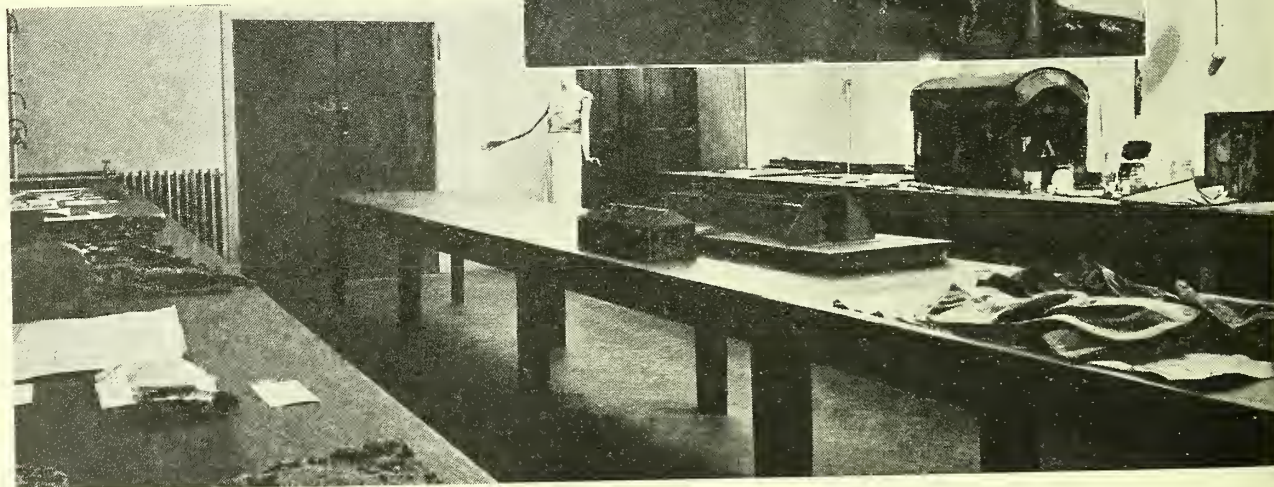


Above : Ultra-violet fluorescent microscope (left)
High-power binocular microscope (right)
Left: Section of the Photographic Department
showing spectrograph, Leica enlarger and
Universal reducer-enlarger

Right: The Ultra-violet Lamp
and X-ray apparatus



Below : The Exhibits Room

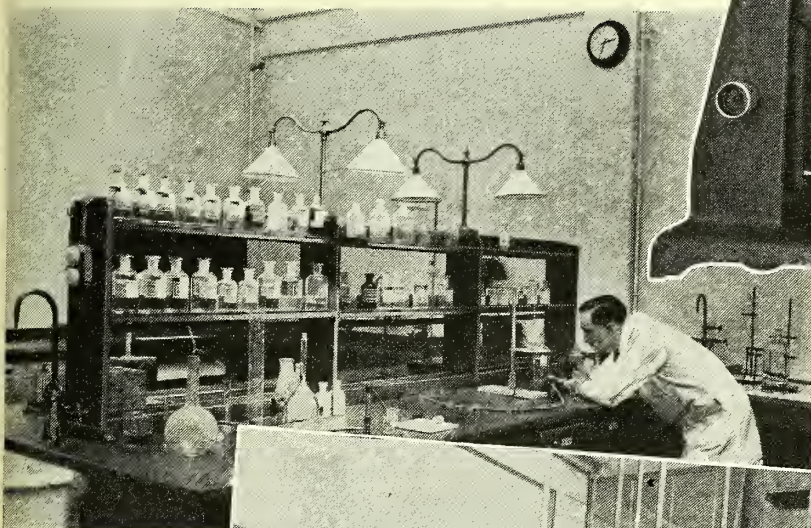




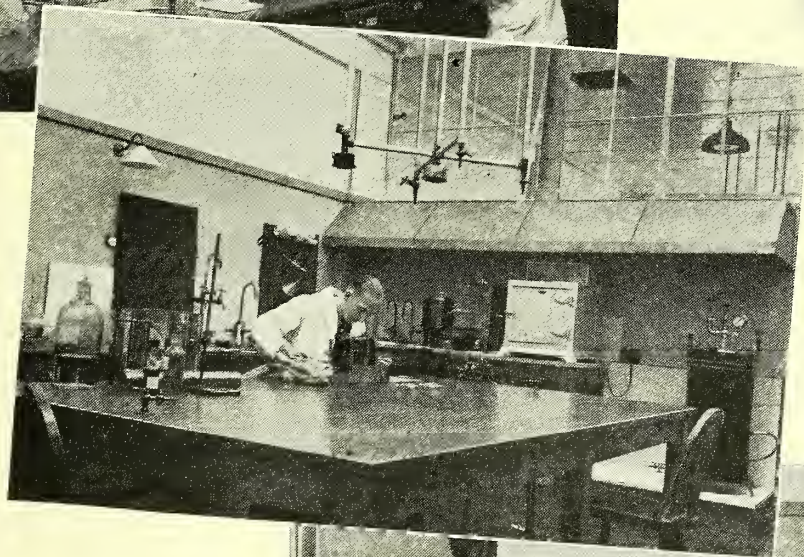
The New

POLICE LABORATORY

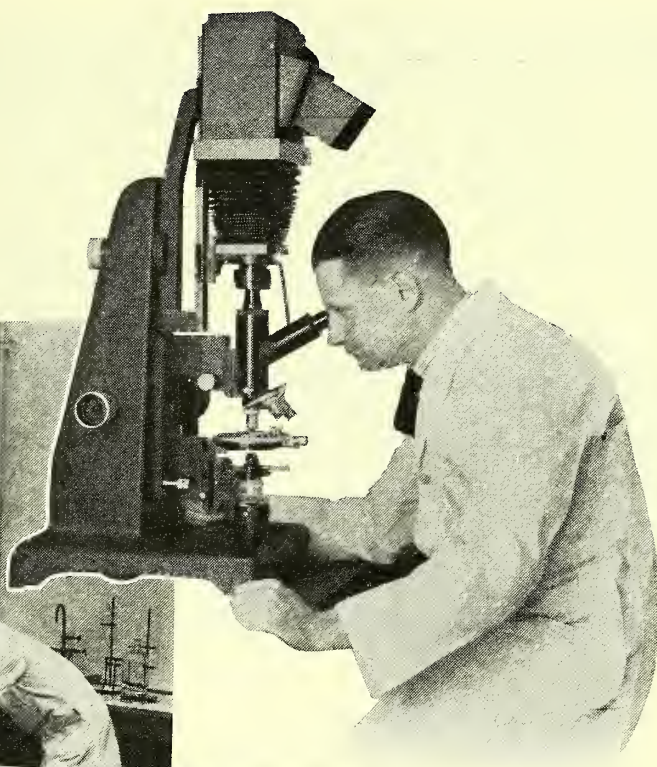
at Hendon



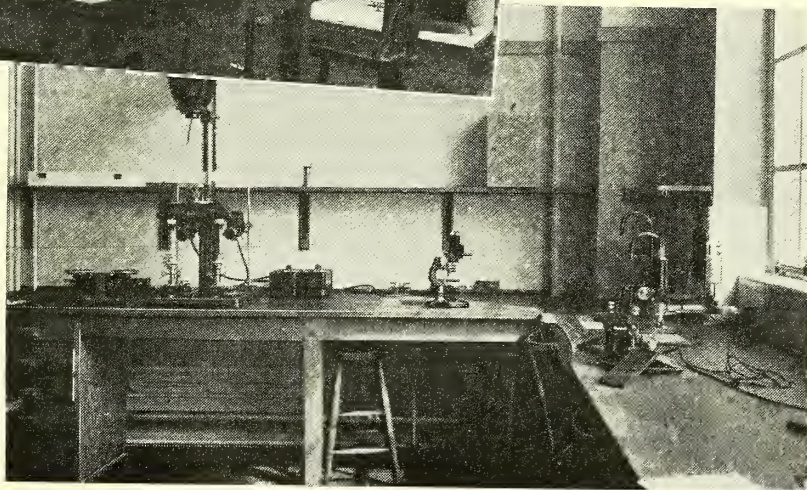
1



2

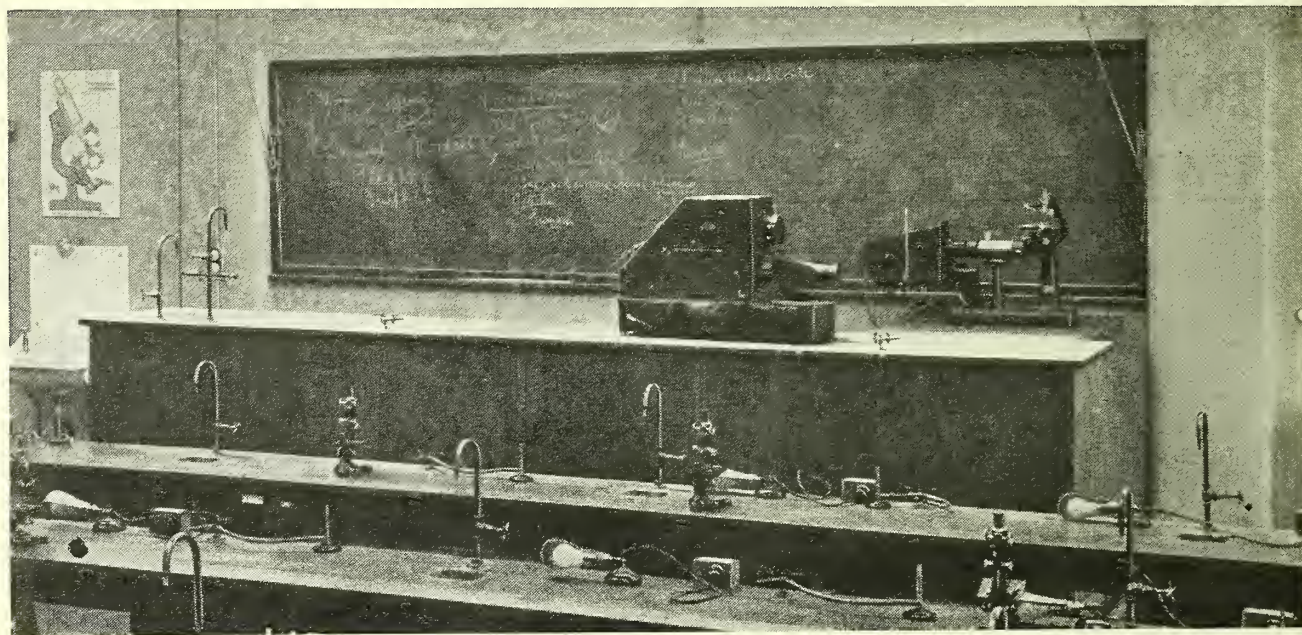


4



3

- 1 One of the chemical laboratories
- 2 Histological laboratory showing ovens, sterilizers and microtomes
- 3 Laboratory showing comparator microscope, 3-power binocular microscope and microscope with ultra pak illuminator
- 4 Apparatus for micro-photography



The lecture and practical classroom

water and compressed air. Appropriate mention may here be made of the balance room, the design of which is typical of the care exercised throughout in planning. The floor of the room is a concrete bed about fifty feet square, but to avoid any stresses or strains which might perchance arise through expansion or contraction of Mother Earth or otherwise, between the concrete and the walls is inserted an insulating layer of bitumen. Returning to the laboratories, two are devoted to microscope technique, and among the apparatus therein are high power binocular microscopes, another in which either of three eyepieces may be brought into position by revolving a screw, but whichever is used the focus is correct for the other two; an ultra-violet fluorescent ultra-pak, by means of which specimens may be examined microscopically (or a photo-micrograph taken) under ordinary or ultra-violet light; and a comparative microscope. The last-mentioned, as its name implies, is for the comparison of a known with an unknown specimen. For instance, when a bullet is fired from a rifle or revolver, certain lines are made on it; thus, if two bullets can be shown to have identical markings it is proof they have been fired by the same weapon. To compare results if using two microscopes, either by the eye or by photography, is somewhat difficult, but if they can be examined side by side it is a simple matter to see if the markings coincide.

The Dark Room

The equipment of this section of the laboratory is even more unusual than those previously mentioned since the apparatus includes a Watson's x-ray plant, a Hanovia ultra-violet lamp, a Leica enlarger, a Watson's Universal enlarger-reducer and a Hedge's quartz spectrograph, thus practically any branch of photography can be undertaken. Much information has been published in the *C. & D.* during the past two years or so regarding the capabilities of ultra-violet and infra-red rays, so that our subscribers will be familiar with this side of the work. The same applies to the enlargers. The spectrograph is a particularly interesting piece of apparatus. With its aid it is possible to determine the constituents of minute quantities of materials, such as dust, fragments of paint and so forth found on suspects. It will be realised that photography as carried on in the Laboratory is far removed from the "gentle art" as generally practised, since to emphasise certain effects it may be necessary to resort to over-exposure and under-develop-

ment or both. Then again, besides ultra-violet and infra-red, side-lighting may be employed to show certain details in relief. For example, a page from a notebook may have no writing on it and be creased in such a way that the indentations were apparently the result of ordinary usage. If photographed with appropriate side-lighting important details are sometimes revealed.

The Exhibits Room

One large room is devoted to what may be described as exhibits and while it is not intended here to deal with the "show pieces" attention may be directed to the figure in the photograph on p. 784. This version of a dressmaker's dummy is used for demonstrating injuries or positions. Strikingly accurate casts can be made of bodily injuries, foot prints and so forth. The material used for taking the impression is similar to dentists' plaster, and if from this "negative" it is desired to produce a "positive" a preparation in the nature of collodion is employed. As an instance of the methods of detection a case of housebreaking may be cited. A door was forced by means of a jemmy and when a suspected person was found in possession of such an instrument a few specks of paint on it were proved by the spectrograph to be of the same composition as the paint on the door; the serrations on the jemmy coincided with those shown on a cast of the damaged woodwork—the rest may be left to the imagination.

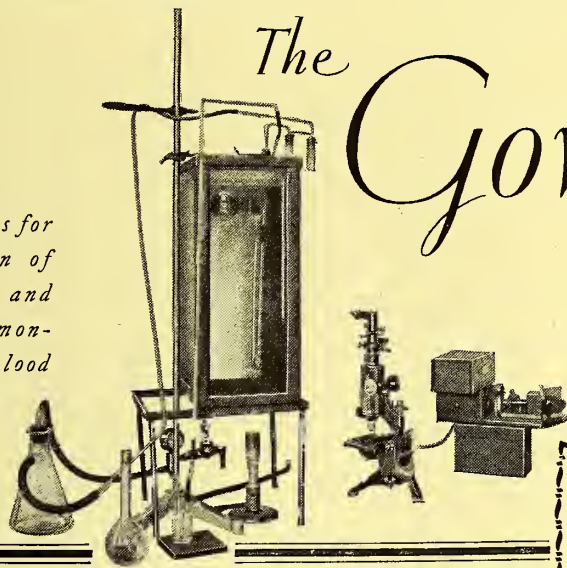
FINDING A WAY.—"A doctor who wished to pay a call at a cottage near Bracknell, Berks, . . . made inquiries at the local post office. Finding the directions very involved he addressed a sixpenny telegram to the cottage and then accompanied the messenger."—"The Times."

DATED COSMETICS.—With the advent of dated coffee this idea could be profitably applied to cosmetics, we think. That would be one way of assuring the consumer of cosmetics free of rancidity, spoilage of different kinds, and the retailer would be delighted to hear about it. There are ever so many cosmetics that can stand up for twelve to eighteen months, but afterwards changes begin to take place, and the longer they stand from then on the worse they get. An eighteen-month dating would be a good idea. . . .—"The American Perfumer."



The Government Laboratory

Apparatus for
estimation of
Alcohol and
Carbon mon-
oxide in Blood



THE GOVERNMENT LABORATORY, with Headquarters at Somerset House, was established in 1894, by the amalgamation of the Chemical Department of the Board of Inland Revenue, set up in 1842, and the Custom House Laboratory, founded in 1875. The Somerset House Laboratory moved to new premises in Clement's Inn Passage in 1897, where it is still housed. Following years of steadily widening activities and the accomplishment of a tremendous amount of pioneering work, to-day, the Laboratory acts for all Government Departments, furnishing advice and decisions on an almost limitless range of subjects. Its chief work, however, is that of protecting the Revenue, acting as a public servant in suppressing adulteration and detecting fraud and in safeguarding the purchase of Government stores. With the introduction of the General Tariff on imports in 1932 more work was thrown on the Laboratory. As the Department of the Government Chemist it is now of the first importance, performing its multifarious duties in a highly efficient and unobtrusive manner. The latest returns show that in one year over five hundred thousand samples were analysed and reported on and in connection with those taken for Revenue purposes over two hundred and seventy-one million pounds sterling were collected.

THE Department of the Government Chemist, known as the Government Laboratory, is situated in Clement's Inn Passage, W.C.2, with an additional laboratory at Custom House and at a number of out-stations. The staff, numbering about 270, is under the direction of Sir Robert Robertson, K.B.E., M.A., D.Sc., LL.D., F.R.S., etc. (Government Chemist), assisted by Dr. J. J. Fox, O.B.E., D.Sc., etc. (Deputy Government Chemist), and six Superintending Chemists. In some sections the duties of the Laboratory are largely routine; here we find efficient organisation and system for dealing with mass work, such as, for instance, handling five thousand samples of tobacco a week. In other sections, highly technical research is the normal daily programme, where every investigation and request for advice demands the highest technical qualities in both staff and apparatus. The following historical review, commencing with the establishment of a Chemical Department of the Inland Revenue in 1842, with a staff of one (Mr. George Phillips), and recording some of the developments that took place up to 1920, illustrates the steadily increasing importance of the Government Laboratory. To-day, analytical control is an important factor in most industries, and chemical research increases in value as modern industrial activities grow in their complexity. In the same way, the

GOVERNMENT LABORATORY,
CLEMENT'S INN PASSAGE, W.C.2.

During the post-war era the work of the Government Laboratory has increased enormously in volume and widened in scope. In connection with this Review of its activities it is fitting that I should pay a tribute to the pioneering work of my four predecessors, who, from 1842 to 1920, were responsible for establishing the foundations of the Department of the Government Chemist as it is to-day. The account which the writer of the article has given of the activities of the Government Laboratory of to-day can be commended as affording a comprehensive picture of these. Much of the information which relates to processes and figures has been supplied to him, so that the accuracy of his article can be relied on. For myself, I should like to remark on the great care and expenditure of time he has given to his task.

R. Robertson

Government Chemist.

Government Laboratory, be it viewed as a protector of the revenue, as a public servant in its efforts to suppress adulteration, or in its advisory capacity to the State and the nation, cannot but increase in importance with each passing year.

1842 to 1920

The limitations of space necessitates that this review of the Government Laboratory's history from its inception in 1842 to 1920 being limited to a brief outline, chiefly composed of some of its most interesting activities, achievements and developments.

The original parent of the present Laboratory was established in 1842. Being convinced that the adulteration of tobacco was being practised to such an extent that the revenue suffered considerable losses, the Government of 1842 passed an Act of Parliament authorising the formation of a Chemical Department, to be attached to the Board of Inland Revenue, at Somerset House. Mr. George Phillips, whose acumen and ability was largely responsible for its inception, was appointed to control this, the first Government Laboratory in the country. From this small beginning the work has been gradually extended to analysing and reporting on a wide range of commodities of almost every kind of raw material



and all descriptions of manufactured articles. One of the earliest researches conducted was an investigation into the comparative value of barley, malt, sugar and molasses to the distiller and brewer, a subject which had hitherto been neglected from the point of view of exact science. This resulted in the issue of tables for determining the original gravity of beer practically identical with those in use to-day. In connection with his services on this subject Mr. Phillips received a Treasury award of £500. Another landmark in the early history of the department was the accomplishment of evolving a formula for denatured spirit of a character that could be allowed to pass duty free out of Revenue control. Mr. Phillips' proposal to add crude wood naphtha was adopted and resulted in the introduction of "methylated spirits," consisting of 90 parts of pure alcohol with 10 parts of wood naphtha. It is a remarkable fact that to this day, despite the offer of many substantial awards by various governments, there is still no better denaturant. This development has been of great benefit to industry and has materially assisted scientific research. Mr. Phillips retired in 1874, after thirty-two years' brilliant service as chief of the laboratory. In a Treasury Minute, dated May 2, 1874, he was thanked for his services and granted a life pension, equal to the full amount of his salary. Dr. James Bell, C.B., D.Sc., F.R.S., was then appointed to the Principalship. It was about this time that the chemical department began to outgrow its original character, changing or rather considerably widening its activities in an advisory capacity. In 1875 a second laboratory was established at the Custom House, London, to deal with the analysis of imported wines, spirits, tea and all other articles, then liable to import duty. Under the Food and Drugs Act, 1875, the Somerset House Laboratory was made the court of reference in cases of disputed analyses.

Standards of Purity

This appointment was the beginning of much research work carried out with the object of fixing suitable standards of food purity, particularly milk and butter, and such beverages as whisky, brandy and rum, and, in due course, many of the department's recommendations were later embodied in Acts of Parliament. At this period of the Laboratory's history some hundred or more "reference" samples of disputed analyses were dealt with annually under the Food and Drugs Act. In 1891 a second type of methylated spirit was recommended, containing a small proportion of mineral oil, which is identical with that in use to-day, except that pyridine and colouring has since been added to distinguish it from other types of methylated spirit. During Dr. Bell's tenure of office, many important researches were carried out, such as that on the subject of the composition of genuine milk, the changes undergone by potable spirits during storage, the efficiency of disinfectants, a matter still under discussion to-day, and the publication of two volumes on the analysis of food. Prior to his retirement in 1894, Dr. Bell was created a Commander of the Bath.

Upon the appointment of Dr. T. E. Thorpe, D.Sc., LL.D., F.R.S. (later Sir T. E. Thorpe) in 1894, the two laboratories, one at Custom House and the other at Somerset House, were placed under his direction, and from that time were officially designated "The Government Laboratory." Following some years of research work on many subjects it was put on record in the report of the Select Committee on Food Products Adulteration that "the standards and limits of purity laid down by the Laboratory were reasonable ones, and that the analytical work had been well done." In 1897 the Laboratory moved to its newly erected premises and present abode in Clement's Inn Passage. The building was planned by Dr. Thorpe and was at that time of the most modern design. In 1898 the Laboratory assisted the Home Office to stamp out the ravages of plumbism, examining in the course of the next few years a large number of lead grits and glazes. Another Home Office matter in which the Laboratory assisted was the inquiry on the use of white phosphorus in matches; from that time onwards samples of matches have been regularly analysed for this dangerous ingredient. During 1900 more than 3,500 samples were examined to aid the investigations of a Departmental Committee on Preservatives and Colouring

Matters in Foods. In the same year the Laboratory reached agreement with a committee of public analysts as to standards relating to the Margarine Clause in the Food and Drugs Act, 1899.

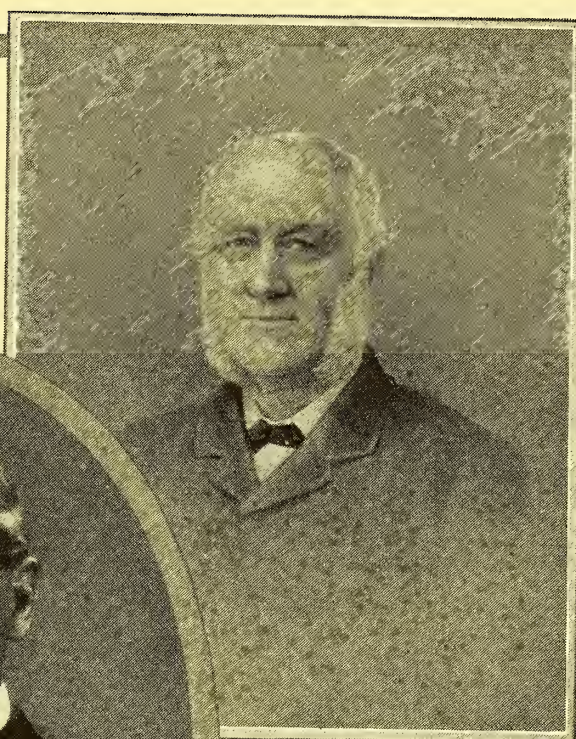
Arsenical Poisoning

At about this time there was an outbreak of an alarming epidemic of arsenical poisoning in Manchester, which was traced to beer consumed in that district, the arsenical contamination being found in the glucose used by the brewers. One outcome of the investigations on this subject was the publication in 1903 of a new extremely sensitive method for the determination of arsenic. A Royal Commission recommended that no brewing material should be used if it contained more than 1/100 grain of arsenic per pound, and samples of such materials are examined to-day on that basis. By 1902 the number of samples of all descriptions examined annually was 64,000, and "chemical stations" were operating at eleven provincial centres, such as Liverpool, Glasgow, Belfast and Dublin. The records show that during 1902, some 2,500 samples of imported butter, cheese, milk and cream were examined at the request of the Board of Agriculture. In 1902 a request was received for the air of the House of Commons to be examined. It was alleged that the atmosphere in the debating chamber was contaminated to a dangerous degree. The records are discreet as to whether this allegation was made by His Majesty's Opposition, but it is recorded that the atmospheric conditions were found to be satisfactory. The Corn Duties which came into force in April, 1902, threw a large amount of a new type of work on the Laboratory. The distinction between flour or meal and the offals or inferior products of milling was a question difficult of satisfactory solution, but a line of demarcation had to be drawn, since the two grades were charged different rates of duty. The Laboratory fixed a standard of a maximum of 50 per cent. of starch in offals, which worked satisfactorily. About this time, the records show that saccharin smuggling was fashionable and the Laboratory assisted in the work of bringing the offenders to justice. In one instance, the fines inflicted amounted to £9,300. The Finance Act of 1902 permitted the use of pure alcohol and specially denatured alcohol duty free for approved purposes. All applications for this privilege were referred to the Laboratory for report. In 1904 over a quarter of a million proof gallons of alcohol passed into consumption duty free under this procedure. In 1906 a new form of duty-free industrial alcohol was authorised, containing only five per cent. of wood naphtha. In the short period of six months over 600 applications for Inland Revenue permits for this industrial methylated spirit were submitted to the Laboratory for report. In the same year Sir Edward Thorpe (Government Chemist) gave evidence before the Royal Commission on Whisky.

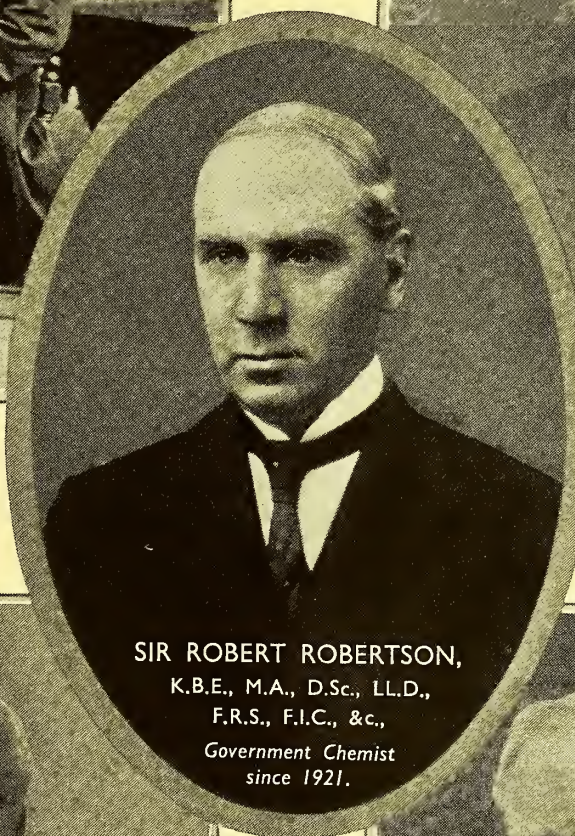
"The Methods of Analyses Regulations," of the Fertilisers and Feeding Stuffs Act, 1906, were largely based on the recommendations of the Laboratory. It is now necessary that certificates of analyses given under the Act shall state that they have been carried out in accordance with these methods. Sir Edward Thorpe retired in October 1909. In his final report he pointed out that during 1894, his first year of control, 76,000 samples were analysed, while in 1909 the number had increased to 176,000. His successor was Dr. James Dobbie, M.A., D.Sc. (later Sir James Dobbie), who held the position for the next eleven years. The following year the Laboratory was constituted a separate department, ceasing to be an appendage of Customs and Excise. About this time frauds were suspected in connection with claims for Old Age Pensions. Entries in family bibles and the like were submitted for examination, and in some instances it was possible to prove forged entries, owing to the modern character of the ink. An interesting investigation of some literary importance was carried out in 1910 for the Public Record Office. A question had arisen as to the authenticity of a portion of an "Account Book of Revels" (1604-5), which recorded the expenses incurred in producing certain plays, among which was "Othello." The Laboratory was able to report, after a most searching chemical and microscopical examination of the entries, that they were all genuine. Samples of medicines



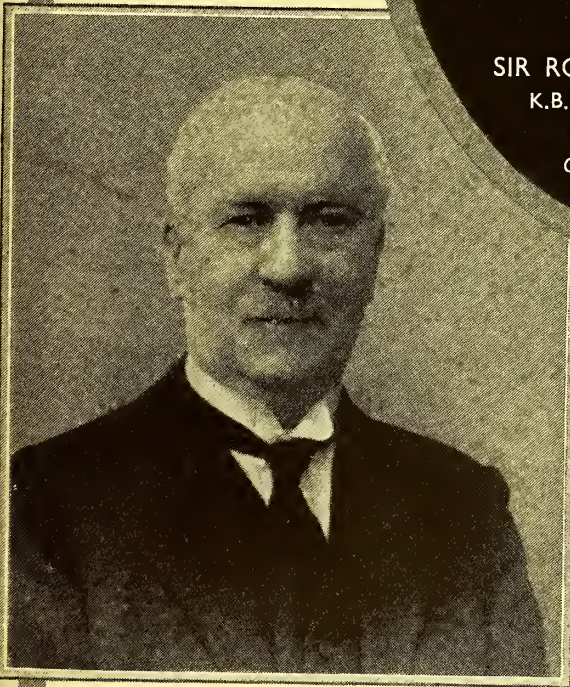
Mr. GEORGE PHILLIPS,
Principal,
1842—1874



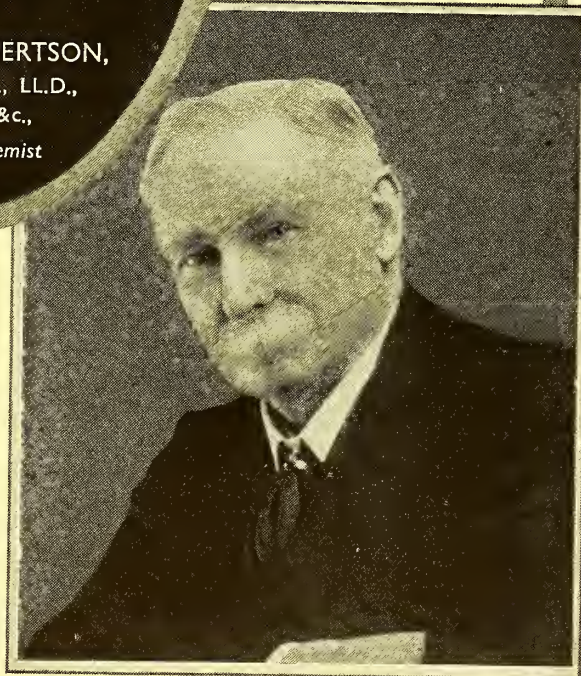
Dr. JAMES BELL,
C.B., D.Sc., F.R.S., &c.,
Principal,
1874—1894



SIR ROBERT ROBERTSON,
K.B.E., M.A., D.Sc., LL.D.,
F.R.S., F.I.C., &c.,
Government Chemist
since 1921.



SIR J. J. DOBBIE,
M.A., D.Sc., LL.D., F.R.S., &c.,
Government Chemist, 1909—1920



SIR T. E. THORPE,
C.B., D.Sc., LL.D., F.R.S., &c.,
Principal, 1894—1909



were being frequently reported on in connection with liability to stamp duty under the Medicine Stamp Duty Acts. In 1913, at the request of the Select Committee of the House of Commons on Patent Medicines, further samples were examined. Unfortunately, the outbreak of war came before the Committee's recommendations found their way to the Statute Book, so that the *status quo ante* still reigns supreme in the world of proprietary medicines. The period of this very brief survey illustrating the Laboratory's activities now reaches the European war. For over four years the work went on almost day and night, an immense number of samples were analysed, principally for the Admiralty, War Office and Air Ministry. The samples were mostly of foodstuffs of every description, metals and contract stores and drugs and

anæsthetics for the War Hospitals. During 1916, over 16,000 samples taken from contractors' deliveries in course of transit to the Expeditionary Forces were examined. The purity of these supplies was guarded with the utmost stringency. At this time over 3,000 samples were examined relative to applications for licences to export prohibited goods. The services of the Government Laboratory were extensively utilised by practically every department and public body on work arising out of war conditions, and it may be said the Laboratory served the country well, with the greatest skill and energy, during those dark days. Sir James Dobbie retired in 1920. He had successfully controlled the Laboratory through the trying war years with great credit and distinction.

The Government Laboratory of To-day

SIR ROBERT ROBERTSON, K.B.E., M.A., D.Sc., LL.D., F.R.S., etc., was appointed Government Chemist in 1921, following distinguished service during the war as Director of Explosives Research at Woolwich Arsenal. Under Sir Robert's direction, the Laboratory, both in routine analytical work and research, has eclipsed all earlier records. The Laboratory of to-day is departmentalised into six sections. Five sections are housed at Clement's Inn Passage, where, although an additional storey has been added to the building, the space available is still inadequate, and in some respects the work is carried on under cramped conditions. The sixth section is the laboratory at Custom House, E.C.3, on the bank of the Thames, near London Bridge. There are also laboratories under the control of the Government Chemist at the Geological Survey, at the Army Supply Depot at Deptford, at Park Royal and at five sea-ports.

"Crown Contracts" Section

ONE of the most interesting sections is the group of laboratories designated "Crown Contracts," where the analytical work is varied and a considerable amount of research is carried on. Included in the scope of work in this section is the analysis of a great variety of substances used by departments of State, such as the Post Office, Office of Works, Air Ministry, Admiralty, Home Office, etc., reporting on the properties of paper, inks, postage stamps, oils of all kinds, soap, wax, paints, bitumen, creosote, insecticides, building materials, steels, non-ferrous metals, glazes, photographic chemicals, etc. Work of a more specialised character includes the recovery of radium from old indicators and the preparation of high-grade radium salt and polonium for ionising rods; gas analysis, including air, oxygen, nitrous oxide for anæsthesia, natural gas and minerals for helium; the examination of forged stamps and documents; the determination of various factors concerned in the safe carriage of dangerous goods at sea and investigations on the causes of corrosion in lead-covered cables.

Determination of Helium

Natural gas is essentially a mixture of combustible hydrocarbons with a little nitrogen and sometimes a little helium. Very occasionally the proportion of helium may be as much as one per cent. or more. Fortunately, natural gas rarely contains neon or hydrogen, so that it is generally possible to separate the helium by condensing all the other gases at the temperature of liquid air. The apparatus illustrated on p. 792 makes use of this principle. Its essential features are a measuring vessel, four condensing tubes, of which three contain charcoal, a Geissler tube in which the purity of the helium is examined by means of a spectroscope, and a Töpler pump backed by an oil pump. The apparatus is first evacuated, the charcoal condensing tubes being freed from gas while hot. An electric heater is shown in the photograph. When the apparatus is cold the condensing tubes are immersed in liquid air. The gas is then passed from the measuring vessel into the condensing tube containing no charcoal, where the bulk of the hydrocarbons is condensed. Subsequent passage of the uncondensed gas through the three tubes containing cold charcoal

removes the remainder of the hydrocarbons, the nitrogen and any other condensable gas, leaving the helium in a pure state. The helium is then pumped off by the Töpler pump, collected in a tube and measured in a constant volume gas-measuring apparatus of the Frankland-Armstrong type.

This section also carries out research work for departmental technical committees and the British Standards Institution on such subjects as scientific glassware, pigments, varnish, etc. It has also co-operated with the Iodine Committee of the Medical Research Council and the Institution of Petroleum Technologists in their work of drafting specifications and methods of analysis. Other research work is in the nature of special investigations, improving old and devising new methods of analysis and the testing of materials for a definite object. In this category is work for the Ethyl Petrol Committee, the Atmospheric Pollution Committee (Sulphur Impurity), the examination of ozonising machines, determination of uranium and radium in minerals, and vapour pressure of solutions of ammonia. The analysis of ferrous metals, coal, coke and other fuels are dealt with in the "Steel Room," while in an adjoining laboratory the calibrations of weights, thermometers and volumetric glassware (including gravity bottles) are undertaken.

Geological Investigations

The Geological Survey laboratory is one of unusual interest, where selections of rocks and minerals are examined, and later the results are reported and published in geological literature. Much of the work is of an investigatory character, and includes the working out of new methods of analysis; for example, the determination of silica in highly titaniferous rocks and of small quantities of beryllium in rocks. Individual specimens, presenting peculiar difficulties, necessitate special treatment, such as the analysis of a carbonaceous limestone containing, *inter alia*, phosphate and fluoride, hydrocarbons and graphitic carbon, iron and sulphur in various states of oxidation and traces of the rarer elements; these elements interfere with the estimation of one another and of the main constituents if the usual methods of analysis are employed. From time to time specimens of interest reach this laboratory for examination, such as pieces of meteorites from Strathmore and from India.

The "Water Room" is engaged in the chemical and



bacteriological examination of drinking waters. The chemists are frequently called upon to visit sources of supply to advise as to the suitability of the water or to indicate possible sources of contamination by infiltration of polluted water. Samples of effluents, mostly from beet sugar and artificial silk factories, dye works and coke ovens, in connection with the pollution of rivers are regularly reported on. Bacteriological examination of water supplies, sewage and miscellaneous materials, the testing of disinfectants for germicidal value and the examination of works of art and records for spoilage by mould growth is also carried out. A certain amount of physico-chemical work is also undertaken, including the electrometric measurement of hydrogen ion concentration of such materials as inks, papers, fresh and tinned milks, leather, soils, etc., and the measurement of the conductivity of electrolytes. The apparatus illustrated on p. 792 is used for the determination of the hydrogen ion concentration or "effective acidity" of solutions by the electrometric method. The methods most commonly used are those using the quinhydrone electrode or the glass electrode. The glass electrode system, as shown, consists of a glass bulb with thin walls containing an acid solution saturated with quinhydrone, into which dips a platinum wire electrode insulated with an amber collar. This glass electrode dips into the liquid of unknown hydrogen ion concentration, to which is connected a standard calomel electrode by means of a tube containing agar gel saturated with potassium chloride. The electromotive force of the cell thus formed is measured on a valve potentiometer using an electrometer triode, and, from the value found, the hydrogen ion concentration of the solution can be obtained by calculation. The electrode system is kept at constant temperature by placing it in an air thermostat. This consists of an insulated cabinet, the air in which is circulated by means of a fan and electrically heated by a coil of nichrome wire, temperature control being effected by a sensitive thermoregulator filled with toluene. The air thermostat is useful for the control of temperature of apparatus having stopcocks, etc., which could not be satisfactorily manipulated when submerged in the ordinary type of thermostat using water or oil.

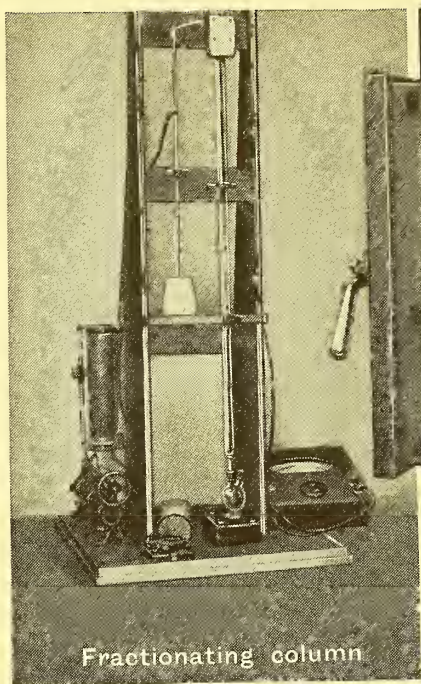
The Silk Room

One of the most important laboratories in this section is the "Silk Room." Here some 20,000 samples are tested and reported on annually. They comprise articles made of, or containing, silk or artificial silk, whether imported or exported, and also specimens of all artificial silk manufactured in this country. In a large number of cases of intimately spun mixtures of dutiable and non-dutiable fibres, and where size, water-proofing materials, etc., are found, the assessment of the dutiable fibres necessitates the employment of chemical methods of unusual complexity. In the cases of made-up articles, partly composed of silk, the estimates have to be made without damage to the article. This work calls for considerable skill and experience with the microscope. A fair number of samples of home-produced artificial silks are examined for the determination of moisture, total volatile matter, acetone, oil and water-soluble size. One of the largest laboratories in this section is the "Ad Valorem Room," which handles a wide range of articles liable to the general *ad valorem* duty now levied on imported goods. Approximately 13,000 samples were examined during 1934, including such products as all kinds of fabrics, fibres, cordage, leather, metals and alloys of all kinds, precious metals, metallic ores, pigments, rubber goods, articles made of wood, cork, natural and artificial resins, gums, pottery ware, papers, oils and fats, fertilisers, drugs, etc. In this room the work is extremely varied and much of it calls for the highest technical ability and experience. The ninth and last laboratory in this section is engaged in the examination of samples submitted by H.M. Office of Works, consisting of oils of all descriptions, soaps, disinfectants, polishes, metal goods, crockery and glassware, cotton, linen and woollen goods, linoleum, carpets and the usual wide range of general stores. In connection with the testing of textiles there is in this laboratory a modern electrically-controlled humidity room, in which the temperature and relative humidity are kept within fine limits.

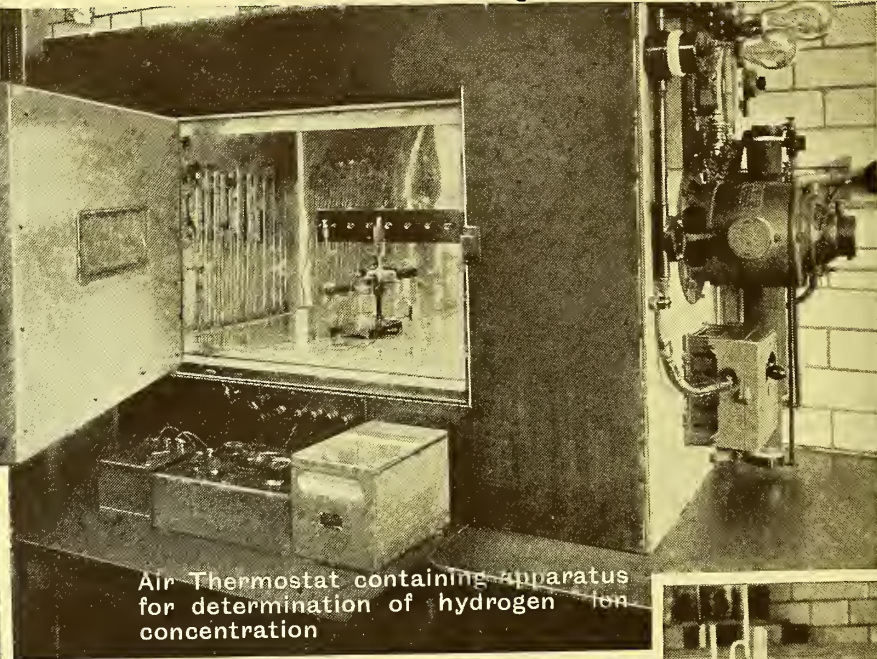
Special Revenue Section

THIS section of the Laboratory is chiefly engaged in examining samples of imports liable to Key Industry duty, the hydrocarbon oils duty and to duty as preparations containing spirit, ethyl acetate and other allied compounds. As a number of products are liable to more than one of these duties, practically the whole of the work is now carried on in one large laboratory, a photograph of which is reproduced on p. 795. Customs, like the Earl Marshal, have to observe a certain table of precedence in the matter of duties. "Specific duty," like that on spirit or that on hydrocarbon oil, takes precedence over Key Industry duty; and both specific duty and Key Industry duty take priority over the *ad valorem* duties. For example, a solvent may contain ethyl acetate and ethyl alcohol, both liable to specific duty, as well as butyl acetate and butyl alcohol, each liable to Key Industry duty. It is important, therefore, to ascertain first the liability to specific duty. This presents many a problem. For ethyl alcohol and ethyl acetate must be determined often in the presence of their homologues and of other compounds difficult to separate from those subject to fiscal assessment. An illustration of the sort of product is the case of "rum essence." This is a flavouring essence made by the traditional method of distilling a mixture of starch, acetic acid, sulphuric acid, manganese dioxide and ethyl alcohol. The distillate contains free ethyl alcohol, ethyl formate, ethyl acetate, ethyl propionate, acetals, amongst other products, and it is necessary to determine the free ethyl alcohol and the ethyl acetate in the essence, of course, without error due to the other compounds present. This error is avoided by identifying those compounds by separating them if possible, and by applying corrections, physical or chemical, for inseparable impurities. Such problems have necessitated the development of improvements grafted on to the method of Thorpe and Holmes, originated more than thirty years ago in the laboratory. (*Trans. Chem. Soc.*, 1903, 83, 314.) The principle of this method is first, if necessary, to separate volatile from non-volatile matter and next to part the volatile matter between saturated aqueous sodium chloride solution and petroleum ether in such a way that all the ethyl alcohol is included in the brine and the other volatile matter, such as essential oils, etc., in the petroleum ether. The brine layer, on distillation, yields the alcohol, which is determined by the pycnometer, checked by the immersion refractometer and, by chemical reaction, proved to be ethyl alcohol. Methyl alcohol remains with ethyl alcohol in the brine layer of the Thorpe and Holmes method. A separate determination of these two alcohols in admixture is effected by so choosing oxidising conditions that the ethyl alcohol is converted to acetic acid and the methyl alcohol to carbon dioxide, which can be removed by boiling under a reflux condenser, leaving the acetic acid to be determined by titration. By means of an efficient column, such as a modified Podbielniak Column, alcohol and ethyl acetate are separated from a mixture of solvents and from preparations such as cellulose lacquers, etc., free from substances which would otherwise vitiate the alcohol estimation. The phenomenon of "azeotropism"—the formation of constant boiling mixtures—is made use of and exact separations are often possible by this means alone. The Podbielniak fractionating column constructed at the Laboratory is illustrated in a photograph on p. 792. A vacuum jacket, electrical heating, electrical temperature recording mechanism, and a "hold up" during distillation of less than 2 ml. are features of this apparatus. Chloroform has long been liable to a specific duty, and it is sometimes necessary to estimate it in presence of other chlorinated compounds which, like chloroform, are decomposed by boiling with caustic alkali. A colorimetric method based on the interaction of chloroform with β -naphthol in strong potassium hydroxide solution has been devised and found satisfactory.

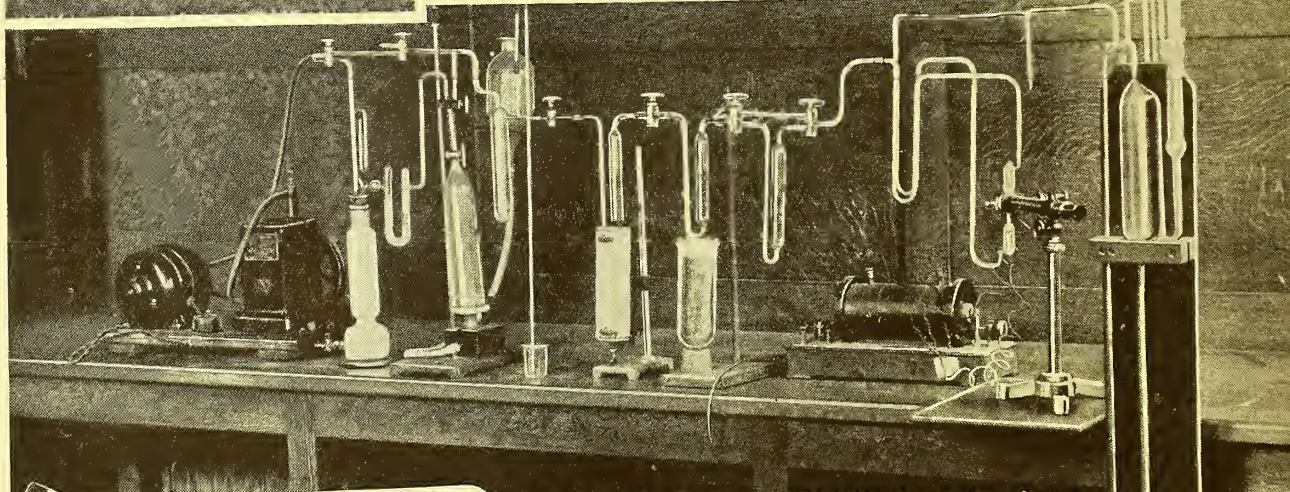
The Safeguarding of Industries Act, in so far as it is related to the chemical industry, imposed a duty of 33½ per cent. on all chemicals listed by the Board of Trade. The list issued in 1921 contained nearly 6,000 chemicals, and about another 1,000 were added when the Act was renewed in 1926. It will be



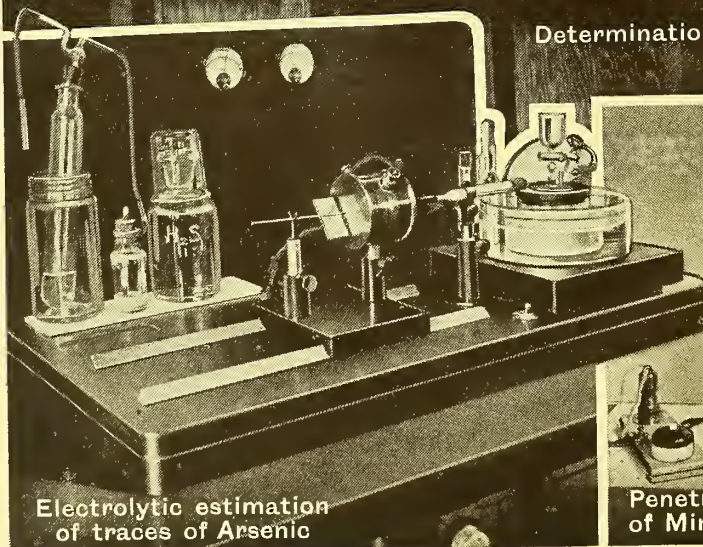
Fractionating column



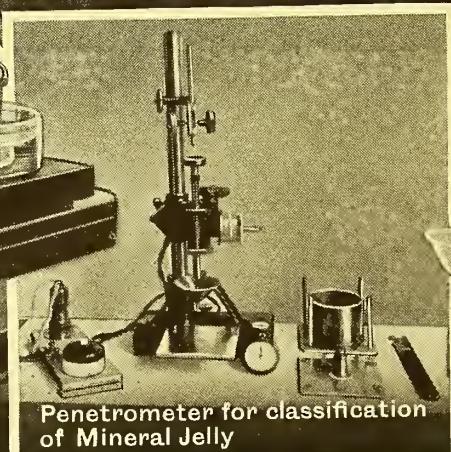
Air Thermostat containing apparatus for determination of hydrogen ion concentration



Determination of HELIUM in natural gas



Electrolytic estimation of traces of Arsenic



Penetrometer for classification of Mineral Jelly



appreciated readily that it takes a resourceful chemist to determine firstly, whether an import is one of the many chemicals included in the lists or, secondly, whether the substance contains any of the chemicals so named, and if so, in what proportion. Compound drugs, proprietary medicines, cosmetics, flavouring essences, pigments, cellulose lacquers, rubber accelerators, catalysts, "wetting-out" agents, plastics, dental fillings, ceramic enamels, essential oils, solvents, sausage casings, the newer detergents for the laundry, leather finishers, rat poisons, radio-active preparations, incense, anaesthetics; these, amongst others, are sent by Customs for analysis. Although the examination is expedited when the importer can co-operate by giving information about the composition of the goods, in many cases this co-operation is impossible, and the chemist has the more arduous problem of discovering, rather than the less difficult task of checking the accuracy of a statement. Occasionally a new synthetic product appears abroad and is put on the market before it has been described in the scientific press. This is often quickly followed by importation of the product into this country and by an inquiry about the liability of the substance to duty. The answer to such an inquiry sometimes entails research to establish the chemical formula of the substance or, at all events, the class of compound to which it belongs. Occasionally a manufacturer of a product is so concerned with its major constituent that he knows little about its minor constituents, and there have been cases where the Laboratory has reported the presence of a dutiable ingredient unsuspected by the manufacturer.

Acetic acid, other than glacial acetic acid, is liable to Key Industry duty only when it is "synthetic." It was necessary to determine what feature distinguished the synthetic acid from the natural acid. Minute traces of mercury were discovered in some samples, and this was at first accepted as evidence of synthetic origin, since mercury salts are known to be used as catalysts in the synthesis of acetic acid. But this evidence did not suffice when it was ascertained that mercury thermometers were used for determining the temperature of distilled natural acid. Further research work, however, succeeded in establishing the difference in the by-products present in minute proportions in each sort of acid. These few instances illustrate the variety of products that have to be analysed and the extremely complex character of the work involved. The Special Section has a record of overcoming the many difficulties and problems it has met with in carrying out the duties of analysing and reporting on over 9,000 Key Industry duty samples annually for the last fourteen years.

Hydrocarbon Oils

Imported liquid hydrocarbon oils are liable to a Customs duty of 8d. per gallon. Such oils are divided into two categories, depending on the boiling range and flash point. The less volatile oils, such as fuel oil, lubricating oils, kerosene, etc., are eligible for a rebate of 7d. a gallon, whilst petrol, white spirit, etc., pay the full duty. This duty is also payable on any such oils in composite articles, such as paint, polishes, etc. Drawback equal to the duty paid is recoverable on exportation of such oils either in bulk or in composite articles; which entails the analysis of a considerable number of samples per annum. Since no excise duty is payable on home-produced benzol, blended motor spirits containing benzol must be examined for their dutiable oil content, both for home consumption and export purposes. Exported lubricating oils frequently contain vegetable oils not eligible for the 1d. per gallon drawback. Mineral jelly and bitumen on importation pay 8d. less 7d. per gallon duty if liquid and 10 per cent. *ad valorem* duty if solid. The definition is laid down and depends on the penetration of a standard cone and needle respectively under specified conditions. For this test a special penetrometer was constructed at the laboratory with a novel electrical release mechanism (see photograph p. 792). Since it is illegal to mix "heavy" oils such as kerosene (paying an effective duty of 1d. per gallon) with light oils, such as petrol (paying 8d. per gallon), a number of samples has been submitted by Customs to the Laboratory to report on the presence of heavy oils in light oils. Several prosecutions have been instituted and decided in favour of the Crown. Samples from imports of hydrocarbon oils examined numbered over 4,300 during the past year, and 7,506 samples from exports were tested during the same period.

Food, Drugs and Agriculture Section

AS in other sections, part of the work in the Food and Drugs laboratories is the examination of samples drawn for revenue purposes. The field, in this case, however, is widened to cover samples of home manufactured and imported products taken to ensure that the goods comply with the various Foods Regulations on questions of purity and character and the important "reference" samples submitted under the Food and Drugs (Adulteration) Act and the Fertilisers and Feeding Stuffs Act. Tender samples and supplies for the War Office, Admiralty, etc., are reported on. One room handles over 7,500 samples of sea water a year. Another room is occupied in co-operating with the police in detecting illegal trafficking in dangerous drugs, in murder cases, arson, and proving charges of being under the influence of alcohol in motoring cases. Advisory work performed for all other Government departments and for many national organisations is carried on by the senior members of the staff of this section, the results of which have a far-reaching effect on the health and welfare of the nation.

Food and Drugs Act

The number of disputed samples submitted under the Food and Drugs Act, 1875, is not very numerous. It is only in cases where the report of public analysts is challenged that the third sample, held by magistrates, is forwarded to Clement's Inn. They are often in the nature of "test" cases, and raise questions of great importance. For these reasons they are dealt with by senior members of the staff who are qualified to give evidence in Court. Such samples are examined primarily on the charge raised at the hearing of the cases in the Courts. The products cover a wide range, such as butter with excess of water or containing foreign fats, margarine with excess of butter fat, rum or whisky diluted below legal limit, sausages and jams containing sulphur dioxide in excessive quantities, medicinal preparations deficient in prescribed quantities, drugs not in accordance with the B.P., and foods or drugs containing lead, copper or arsenic. The majority of the samples, however, consist of milks alleged to be deprived of their fat or adulterated with water. In some of these cases the samples of the milk are fully four to six weeks old when they reach the Laboratory and are in a decomposed condition. Their analysis is much more elaborate than that of fresh milk, involving, in addition to the ordinary analysis for fat and non-fatty solids, determinations of the quantities of decomposition products, like alcohol, ammonia, acetic or butyric acids, and the reconstitution of the composition of the original milk from the combined results. This process of analysis was devised in the Laboratory, making possible the operation of the Food and Drugs Act, as regards milk and similar products. Very much the same class of work is carried on in this section in handling disputed samples under the Fertilisers and Feeding Stuffs Act, 1926. About 1,300 samples of butter, cream, cheese, condensed milk, and other imported agricultural produce are analysed each year, to ensure they conform in all respects to the legalised standards of composition and purity. It is interesting to note that before the use of boric acid was prohibited in 1925 about 77 per cent. of the samples of imported margarine and about 40 per cent. of the butters contained this preservative. Since that time, except for a very few cases of accidental contamination, such samples have been free from boric acid. Samples of all sorts of foodstuffs are received for examination under the Preservatives Regulations. The Laboratory's work in connection with the Wheat Act of 1932 has already been of the first importance. During 1934 some 1,400 samples of sharps or middlings were examined, about one-fifth of which were found to contain an excessive proportion of flour and were charged with quota. Under the various national mark schemes organised by the Ministry of Agriculture and Fisheries samples taken from suppliers, either authorised within the schemes or before the enrolment as authorised packers by the trade committees, are submitted for report. Malt extract, with or without cod-liver oil, must conform with specified



degrees of concentration, content of nitrogen, and, in the former kind, proportion of cod-liver oil. Cider and champagne cider are examined, to confirm the required amount of apple juice and to ensure the absence of saccharin or of excesses of acetic acid, due to faulty storage, of tartaric acid or of permitted preservatives, such as sulphites. Cheshire and Stilton cheeses claiming the national mark are analysed to prove that skimmed milk has not been used in their manufacture. Honey is examined under the scheme for that product to ascertain if it has been diluted with water or has been adulterated with cane or other sugars or contains an excessive proportion of formic acid. Occasionally samples from other articles are submitted by the Ministry, such as eggs, for evidence of treatment with waterglass or other preservatives, water from watercress beds, for purity, tinned vegetables, for artificial colouring, etc. This section of the Laboratory is responsible for dealing with a part of the samples of imported goods that are liable to duties under the Import Duties Act and the Ottawa Agreement Act. During 1934 over 3,200 such samples were examined. Many problems of correct description affecting the liability or otherwise of imports to duty are referred for report. As an instance of the confusion that has sometimes arisen the case of the duty on cod-liver oil under the Ottawa Act was first assumed to apply only to the pharmaceutical product. A large number of samples were examined, and there was a good deal of discussion before it was accepted that the term cod-liver oil covered medicinal, veterinary and industrial qualities of the liver-oil not only of cod fish, but also the liver-oils of many fish of the *Gadidae* species, haddock, saith, whiting, etc. Similarly, questions have arisen as to whether sperm oil was exempted as "whale oil"; whether salmon roe was "caviare" and if, under the Ottawa duties, "milk powder" included whey powder or buttermilk powder.

One group of this section of the Laboratory is engaged in examining samples submitted by other departments, such as the War Office, Admiralty, the Crown Agents for the Colonies, etc. In the last year of the war as many as 20,000 samples of foods were examined by the staff. To-day, at the Supply Depot at Deptford, they are engaged in analysing all supplies for home and overseas units, giving technical advice on many subjects. (Some few years ago a supply of foreign condensed milk was found to have become heavily contaminated, containing up to 2.6 grains of tin per pound. The tins were heavily etched near the soldered joints, indicating the use of an acid soldering flux.) The Crown Agents for the Colonies send samples mainly of drugs, but also all descriptions of tinned goods, butters, etc., for report before despatch to certain Colonies from this country. The Ministry of Agriculture seeks the assistance of the Laboratory on sheep dips, samples of which are submitted periodically, to ensure their compliance with Sheep Scab Orders; insecticides are analysed, including spray mixtures devised for the control of the recent invasion of Colorado beetle into this country.

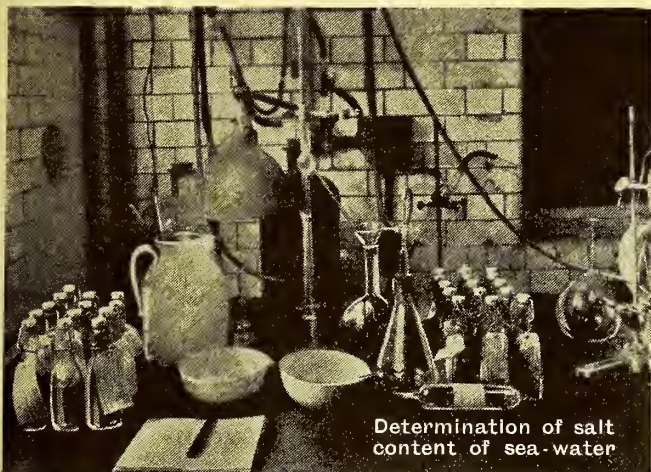
Charting the Seas

An interesting room in this section is known as the "Salinity Room." Here over 7,500 samples of sea water are examined annually for the English and Scottish Fishery authorities. These are part of an international scheme by which the salt content of the sea water, principally from the North Sea and English Channel, can be mapped out regularly. Changes of salinity are used, in the same way as the well-known isobars of weather charts, to instruct the authorities on the mass-movement of the sea from place to place. This movement, distinct from the tidal ebb and flow, shows that the Gulf Stream flows in different directions from year to year, and, depending on whether the spawn of herring or cod, etc., are carried by this movement to suitable or unsuitable depths or areas of the sea, the crop of fish of that year's birth will be plentiful or scarce. The salinity of the open sea varies usually between limits of 33 and 36 grams of salt per thousand grams of sea water, and the determinations, to be of any use, must be correct to 0.02 parts per thousand (or 1 in 50,000). The International Committee sends out carefully checked solutions for use as standards in all the contributing countries, but, in order to work within the desired limit of accuracy, precautions must be taken to ensure uniformity of procedure and of

temperature among samples during test, and complete breakdown of the silver chloride precipitate during the titrations. In addition the method and apparatus are specially adapted for the purpose. The pipette used for measuring the samples of standard and sea water is filled up to a tap, which on turning admits air and eliminates one adjustment in delivery of the contents. As the samples vary within a small range, the silver nitrate burette is graduated only over part of its delivery from 16.0 to 21.5 units of volume, the greater part of the reagent used in each titration being contained in a bulb fitted with an automatic overflow zero adjustment. Each unit, graduated at twentieths, occupies about two inches of the length of the burette and, with this wide spacing, readings can easily be made to one two-hundredth of a unit. Errors which might arise between different observers by the use of incorrectly standardised silver nitrate or incorrect volume of pipette are cut out by the use of the International standard sea water and the simple means of each observer making up his stock of silver nitrate solution of such strength that his pipette of standard sea water requires as many units of silver nitrate solution as there are parts per thousand of chlorine in the standard. In practice this is easily attained within 0.02 units, and by means of tables (Knudsen's) one correction is applied to the titration reading, embodying the correction for this difference in adjustment and the correction of permillage of chlorine by volume into permillage by weight. Other tables convert the chlorine content into salt content, i.e., salinity, and give values for the density of the sample at different temperatures.

Examination of Blood

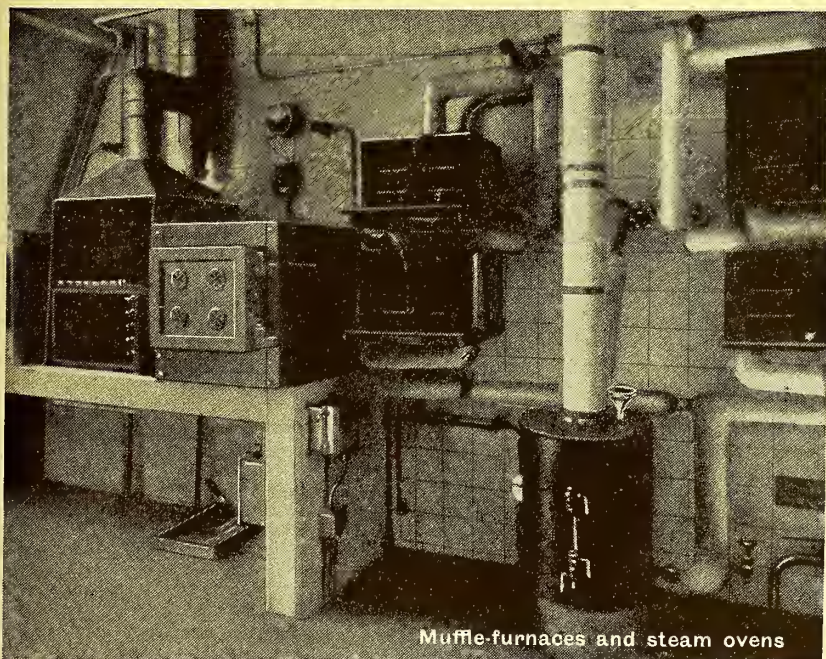
The apparatus for the examination of blood stains and the determination of carbon monoxide and alcohol in blood is illustrated on p. 787. The alcohol content of blood is found by placing the specimen in a small flask fitted to a U tube containing standard dichromate-sulphuric acid solution. The ensemble is immersed in the hot water tank and the whole of the alcohol in the blood is removed in a current of previously dried air, which is subsequently broken into a stream of fine bubbles as it is sucked through the oxidising solution. The quantity of dichromate reduced is a measure of the alcohol in the sample of blood. The spectroscopic attachment of a microscope permits the presence of very small quantities of blood to be demonstrated by means of the characteristic absorption spectra of hæmoglobin and its derivatives. The changes produced in blood by carbon monoxide frequently allow of the detection of the gas by this instrument. The Hartridge Reversion Spectroscope is designed for determining carbon monoxide in blood and is of value in cases where carbon monoxide poisoning may have occurred or where symptoms of inco-ordination may be due either to carbon monoxide or excessive consumption of alcohol. This section also co-operates with the police and the Customs water-side authorities in preventing the unauthorised possession, importation or sale of dangerous drugs, such as morphine, cocaine, hashish, etc. Pots, spoons, opium pipes and similar articles, detected during ship's inspection or the results of raids on East End smoking dens are received and reported on. Cigarettes containing Indian hemp, pills and liquids, suspected to be abortifacients, liquors taken during police raids, corrosive fluids used at personal assaults, chocolates containing ground glass and milk charged with salts of lemon are characteristic goods submitted. Occasionally, in this interesting room, the investigations give unexpected results, as when a perfectly sealed bottle labelled "Morphine Sulphate" was found to contain quinine sulphate, which had been substituted at some time, leaving only traces of morphine sulphate in the corners of the bottle. Other samples received from the police have involved examination of dust particles, identification of blood stains on clothing and incendiary materials. In one instance of arson some celluloid balls, half-filled with petrol, with cotton wool acting as a wick, were found in various stages of demolition; in another instance a zinc-lined box was only partly burnt and retained evidence of having contained petrol. In a murder case a few years ago three suspects were known to have been using a certain motor-car. On the coat of the murdered man was found a small piece of dirty fluffy material. It was proved that this was similar in length and nature of fibre and



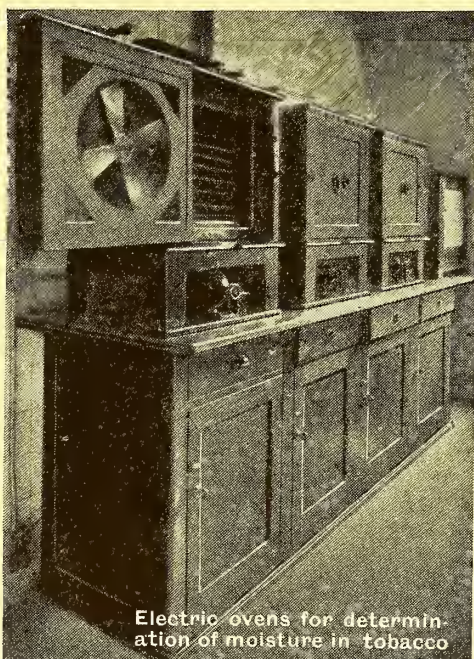
Determination of salt
content of sea-water



Tobacco Laboratory—
General View.



Muffle-furnaces and steam ovens



Electric ovens for determin-
ation of moisture in tobacco



Main laboratory
General View



was dyed with the same dye to the same shade as the material of a dirty mat in the suspects' car.

The senior chemists in this section have to give a good deal of time to work on various committees, such as the British Standards Institution, a number of departmental and trade advisory committees, five working committees of the Society of Public Analysts on "Standardisation of Methods of Analyses" and on the Poisons Board recently constituted under the Poisons and Pharmacy Act, 1933. The volume and variety of work performed by this section has increased very substantially during the past few years. While there is little to show in the form of statistics for the vast amount of research, investigations and advisory work, the records show that, in connection with the more or less routine duties, this section examined and reported on some 12,000 samples in 1924 and that the number had increased to over 19,000 in 1934.

Tobacco Section

THE Tobacco Section is housed in the floor space recently added to the Clement's Inn Passage building, and is composed of modern laboratories equipped with the latest apparatus. As mentioned in the historical review, it was in consequence of the gross adulteration of tobacco that the Pure Tobacco Act was passed in 1842, and the first chemical department established. Until this time and, in fact, ever since its introduction into this country during the sixteenth century, tobacco had been quite commonly sophisticated. Jonson in his "Alchemist" (1610) refers to Abel Druggier, a tobacconist, as one who

" Lets one have good tobacco and does not
Sophisticate it with sack, lees or oil,
Nor washes it in muscadell and grains
Nor buries it in gravel underground
But keeps it in fine lily pots, that, open'd
Smell like a conserve of roses or french beans."

The enumeration of prohibited substances in the 1842 Act gives one a good idea of what the so-called tobacco of that period might contain. The list includes malt roots, roasted grain, chicory, lime, ochre, powdered wood, treacle, seaweed and moss. In consequence of the operation of this Act since 1842, British-made tobacco and cigarettes have set a world standard of purity and excellence, the purity of the products being analytically controlled by the Laboratory. Tribute may well be paid here to the pioneering work of Mr. George Phillips, who worked alone in the first two years, during which he was placed in charge of a small laboratory at Somerset House. The confidence of the smoker of to-day and, incidentally, a substantial world trade in manufactured tobacco and cigarettes have been built up within a period of one hundred years of effective administration of the Pure Tobacco Act of 1842, by the chemists of the Government Laboratory.

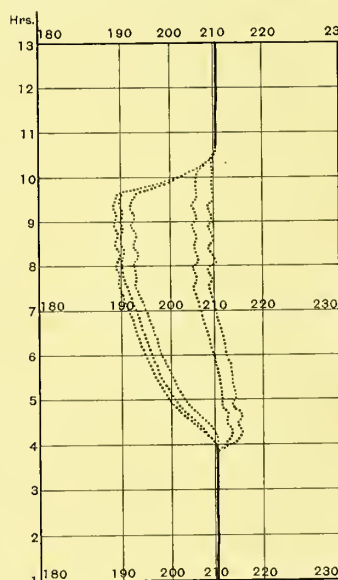
The work in the tobacco department is well organised, and, although much of it is repetition, care and attention to detail are constantly needed. There are six groups engaged in examining samples for purity, revenue assessment and payment of "drawback" on exports, scrutinising denatured tobacco intended for insecticidal and similar purposes, flavourings and miscellaneous samples. The average number of samples now being examined during each week is about five thousand. The net revenue last year amounted to no less than £67,523,369, which represented just over 151 million pounds of tobacco, and approximately £25,000,000 were paid as "drawback" or duties refunded.

Determination of Moisture

Standard tobacco contains 14 per cent. of moisture, and the drawback paid is reduced or increased according to the percentage of moisture actually found in the sample taken from the goods to be exported. Although the determination of moisture presents no great difficulty, the large number of samples involved and the extreme readiness of tobacco to reabsorb moisture render necessary a very strict control and special apparatus designed by the staff and calculated to give the utmost

efficiency; steam ovens fitted with barometric adjustment, electric ovens in which, by a device developed by the staff, the usual irregularity of temperature is eliminated, an electric recorder to show the temperature of each oven, rapid cooling desiccators and rapid automatic balances of various designs facilitate routine operations. The necessity for extreme accuracy in moisture determination, and the fact that between seven hundred and one thousand samples are examined daily, renders the task of controlling the temperature of the drying ovens one of utmost importance. Electric ovens of the latest type were installed, but it was found that the temperatures of different parts of their interiors varied by so much as twenty degrees. This, of course, rendered these ovens quite unsuitable for the purpose. Experiments were carried out by the staff; there was devised a special type of extractor fan which, installed in a chamber in the doors, draws the cooler air from the centre of the ovens and, by means of flanges on the blades, drives it back into the corners, where otherwise "pockets" of hot air would settle. (Illustration p. 795.) The chart reproduced on this page clearly demonstrates the even temperature thus obtained in all parts of the oven. This shows the temperatures of the four corners and the centre of an oven during a run of thirteen hours. With the fan in operation for the first three hours, the temperatures of all five points were identical. The fan was then switched off and immediately variations began to be recorded, reaching a maximum of 20 degrees. Later the fan was again put into operation, resulting in uniform temperatures in all parts of the oven.

Tobacco manufacturers are permitted to return stalks and other residues rejected during manufacture, and duty is refunded accordingly. Samples are taken from each lot deposited and examined in order to assess the amount of duty to be refunded. Waste tobacco is allowed to be traded and used "duty-free" or free of excise duty, but it must first be denatured. This is done in such a way that the goods could be detected microscopically if re-presented for "drawback" as stalks or offal. Under the heading of "miscellaneous," the work of examining flavourings which may be used under strict control, if they conform to certain analytical and preservative standards, is carried out. The adhesives used on the cigarette papers are tested and have to conform to stringent regulations, and, similarly, the olive oil which may be used in limited quantities in "twist" and "roll" tobacco has to be examined before it is approved. Scientific investigations concerning tobacco are also undertaken, and various aspects of the working of the regulations come under critical review. In this connection the question of the preservative value of flavourings has recently involved the examination of a large number of



for purity, revenue and "drawback" purposes of over 200,000 samples a year, is characterised by system, speed and accuracy.



Excise Section

DUE to lack of space in the Government Laboratory building this section is partly housed in an annexe situated in the grounds of the Law Courts. The work in this section is concerned mainly with the chemical control of dutiable materials such as beer, wines, glucose and saccharin, preparations made from hops, lime and lemon juices, etc. The duty on beer is charged on the gravity of the worts at the brewery before fermentation, i.e., the original gravity. All breweries are regularly surveyed by Officers of Customs and Excise, who check the quantity and gravity of all worts produced at the time of manufacture. As a further check on the accuracy of the brewers' declarations, samples of worts are examined for original gravity at this Laboratory. The samples received have nearly always undergone some degree of fermentation, and the method for the determination of the original gravity involves a distillation of the worts and an estimation of the alcohol present. Tables are used to correlate the percentage of alcohol present with "degrees of gravity lost" during fermentation. The gravity lost when added to the gravity of the de-alcoholised extract gives the original gravity of the wort. The number of worts samples examined during the year 1933-34 was 4,888. This section also examines samples of brewing materials (e.g., malt, sugars, syrups, finings, etc.), and gives technical advice on brewing questions to the Board of Customs and Excise in connection with the revenue control of brewing operations. All brewing materials and many samples of worts and finished beer are examined for freedom from arsenic.

The Estimation of Arsenic

Special apparatus has been designed for the staff for the estimation of minute quantities of arsenic by an electrolytic method, a photograph of which is reproduced on p. 792. The sample to be tested for traces of arsenic is treated as follows. After suitable treatment by wet or dry combustion to remove organic matter, the arsenic is reduced and distilled off with hydrochloric acid and the distillate evaporated with nitric acid. The residue is taken up in dilute sulphuric acid and is then introduced into the cell. The cell itself consists of a porous pot containing mercury which forms the cathode; the pot stands in an outer vessel which contains dilute sulphuric acid as the electrolyte and also the circular platinum anode. A current of about 3 amps. is passed through the cell, and at the mercury surface any arsenic it may contain is reduced to arsine. This is swept with hydrogen over calcium chloride and along a hard-glass deposit tube inserted through a small electric furnace maintained at about 800° C. At this temperature the arsine is decomposed to arsenic and hydrogen, and the arsenic deposits itself on the cooler walls of the tube beyond the furnace as a brownish mirror. Such mirrors obtained from samples are compared with standards prepared by the introduction of known amounts of arsenic into the cell. By the above method such small quantities as 0.0005-0.001 mgm. or As_2O_3 may be easily detected.

Samples of beer are also examined in connection with offences against the Revenue Acts, such as brewing without licence and addition of unauthorised materials such as saccharin, saponin and sugar to beer, concealment of worts, dilution by publicans, and the liability to duty of non-alcoholic beverages. In connection with infringements of the Revenue Acts relating to beer, recent work done in this section has made it possible to determine with a considerable degree of accuracy the proportion and kind of sugar present in beer. When the general sugar duty was imposed a tax was also levied on glucose and saccharin. Glucose for duty purposes is divided into two categories, solid and liquid, each bearing different rates of duty according to the degree of starch conversion which has taken place. Differentiation is based on the relative optical activities and Fehling reducing properties of the respective materials. Saccharin, on account of the small quantity which could replace relatively large quantities of sugar, is manufactured under close revenue control. Samples of the finished product, the by-products and residues are

examined for saccharin content. Over 400 samples of saccharin and articles containing saccharin were examined in 1934 for the purpose of repayment of duty on exportation. Under the Finance Acts, 1925, 1929 and 1933, a Customs duty is levied on extracts, essences and similar preparations made from hops, and samples of such articles are examined in connection with the assessment of this duty. Wines fortified in bonded warehouses are examined to determine the rate of duty payable when delivered for home consumption. The Merchant Shipping Act, 1894, provided that every foreign-going ship shall carry lime or lemon juice as an antiscorbutic. The chemical examination of the raw juice which it is proposed to ship, and of the juice after fortifying with spirit, is carried out in this section. In 1934 about 200 of such samples were dealt with. It is now known that, of the citrus fruit juices, those of the orange and lemon are much more powerful antiscorbutics and that the preserved juice of the lime is of little value for that purpose. Knowledge of vitamin C, the antiscorbutic vitamin present in citrus fruit juices, has increased during the past year or so. Its isolation as a chemical individual has been accomplished elsewhere and its constitution determined. It is now known as "ascorbic acid," an acid related to the hexose sugars.

Alcohol for Scientific Purposes

In connection with the revenue control of alcohol, as in the case of beer, it is necessary for certain products of the intermediate stages of manufacture to be examined. For instance, the fermented solution of sugars derived from grain or molasses, known as "wash," which contains the spirit prior to distillation, is analysed for its original gravity to check the distillers' declarations. When the spirit duties were increased by the Finance Acts of 1915 and 1918, alcohol used for medical and scientific purposes was excluded from these extra charges and repayment of the additional duties was allowed on all spirits used for these purposes. Samples of alcoholic preparations are examined in connection with questions of rebate duty, and in addition questions as to the proper classification of these substances or as to the use of spirits for scientific purposes are referred for report. On the advice tendered by the Government Chemist as to whether or not articles can be admitted to rebate, the repayment of large sums of money depends.

The growing use of duty-free spirits in the manufacture of esters, dyestuffs, solvents such as acetone, and organic products generally is responsible for a large amount of chemical work required in connection with revenue control of the denaturing operations, and distribution of the products. Mixtures of spirits and denaturants are examined with the view to ascertaining whether the spirits are properly denatured, and samples of products are analysed for the proportion of spirits remaining unchanged. A method for the determination of spirits in mixtures containing other products, such as essential oils, higher alcohols and hydrocarbons, which is frequently employed in work connected with the use of duty-free spirits, is that of Thorpe and Holmes, and is based on the extraction of the sample with petroleum ether after saturating with brine. The alcohol remains in the salt solution and can be distilled off and estimated by specific gravity determinations. Acetone, which is often met with in mixtures, is removed by refluxing with benzaldehyde and soda and then distillation with steam, the benzaldehyde in the distillate being separated by means of benzene and salt, and then the benzene by petroleum ether and salt. Acetaldehyde can be similarly removed by refluxing with aniline phosphate distillation and a petroleum ether and salt treatment of the distillate.

Duty-Free Spirits

Perhaps the most important work relating to spirits (apart from the financial aspect), however, is connected with the use of duty-free spirits and industrial methylated spirits. Samples of all denaturants are examined, and a rapidly increasing number of intermediates and finished products all denaturants are examined, and a rapidly increasing



number of samples of intermediates and finished products (esters, ether and vinegar, of toilet articles and medicinal preparations for external use) made with denatured or methylated spirits, are examined as regards their composition, proper proportion of denaturants, freedom from spirits, etc. In connection with this aspect of the use of spirits, some three thousand files were referred to the Laboratory last year for advice on questions of denaturing, control of operations, and as to the desirability of granting the use of duty-free spirits and industrial methylated spirits. It is of interest to note that the use of duty-free spirits has increased from 1,289,000 proof gallons in the financial year 1925-26 to 20,639,000 proof gallons during 1933-34, while the quantity of methylated spirits produced has also increased, being 12,961,041 proof gallons in 1933-34. The enormous increase in the consumption in industry in this country of duty-free spirit suggests that the authorities are awake to the national importance of providing adequate facilities to obtain supplies.

In connection with Medicine Stamp Duty samples of proprietary medicines are examined to determine their liability, the work demanding analytical skill of a high order. Questions relating to this duty are also referred to the Laboratory for advice. It is of interest to note that the revenue obtained from this involved and often disputed duty has gradually decreased during the past five years to the extent of about £450,000, and is now only £777,131.

Custom House Section

THIS Laboratory was established at the Custom House, near London Bridge, in 1875, at the time of the passing of the Food and Drugs Act, which provided that analysts should be appointed under that legislation by Customs. In due course the work developed and the examination of other dutiable goods, such as beer, cider, fusel oil, varnish, imported butter, etc., was undertaken. Goods being re-exported on which "drawback" was claimed were also reported on in those early days. At that time the Laboratory was under the direct control of Customs. In 1894, under the leadership of Dr. T. E. Thorpe (later Sir T. E. Thorpe), it was amalgamated with Somerset House Laboratory, thus forming the Government Laboratory. The work at the Custom House branch under the control of a superintending chemist relates mostly to old-established Customs duties, and there is little about it that is spectacular except, possibly, the amount of duty payable on the goods dealt with. All imported beer is examined, the original gravity being checked by analysis. Exported beer is also tested by distillation in all doubtful cases, but wherever possible a rapid approximate test, employing an immersion refractometer, is employed. All imports of wines have to be examined to ascertain the proportion of proof spirit, on which the graded duty is based. This work is also performed very rapidly by the aid of the immersion refractometer and specific gravity estimations, over 95,000 samples being dealt with annually in this way. The duty on alcohol or spirits is a substantial item in the public revenue and involves the chemical examination of some 46,000 samples a year. As in the case of beer, it is necessary for certain products of the intermediate stages of the manufacture of spirits to be examined by chemical means.

Spirit Duty Problems

Large quantities of spirituous articles, such as medicinal tinctures, flavouring essences, perfumes, gin, cordials and liqueurs are exported from this country and provide numerous samples for determination of the proportions of spirits and sugar on which drawback is paid. The percentage of spirit is estimated in most cases by means of the Thorpe and Holmes' method already mentioned. Such preparations as perfumes, proprietary nostrums, hair lotions, spirit varnishes, essences, transparent soap give but little difficulty in spirit assay. But the case is different with the new forms of lacquers, for example, of which nitrocellulose is the base, there being used for its solution a mixed solvent of great variety and complexity consisting of alcohols, esters and hydrocarbons. From these, the solvent or such proportion of it as certainly

contains all the dutiable constituents, must be separated and must be treated in such a way as to part ethyl alcohol from other solvents. The devices used include fractional distillation having regard to the azeotropic mixtures present, fixation of ketones by condensations, extraction by known pure solvents used in proportions appropriate to their partition coefficients; finally, corrections must be applied when there remains in the solution some identified foreign substance impossible completely to remove by extraction methods. Commercial solvents such as methyl ethyl ketone used as an industrial solvent or reagents like formaldehyde used in the synthetic resin industry, for years free from ethyl alcohol when imported into this country, by mischance in manufacture sometimes get contaminated with spirit. Ether, ethyl acetate and butyrate, ethyl chloride, bromide and iodide, chloroform, chloral hydrate and collodion are each specifically included in the Customs Tariff; so that the complete assessment of the liability of some imported industrial preparations to "specific" duty alone is a matter of great difficulty. It must be done in the face of informed criticism by the foreign maker, who knows what he puts in wittingly, but does not always appreciate what he may introduce by way of impurity, and sometimes does not realise that his product will be handicapped by a serious duty charge if denatured alcohol is an ingredient.

Composite Goods

Although there is no drawback on exported beverages (other than beer), certain spirituous articles of British manufacture are given this remission of duty. Such articles as tinctures, medicinal spirits, flavouring essences, perfumes, etc., come within this category. In these cases, in ascertaining the amount of alcohol, it is necessary to adopt various devices to get rid of interfering substances derived from the flavour of the medicine, or to allow for non-dutiable solvents such as isopropyl alcohol, while a careful check has to be made against the presence of methylated spirits. An important part of the work at the Customs Laboratory relates to checking samples in relation to duty or drawback on sugar. Imported composite articles, and there are thousands of them, containing sugar, molasses or glucose, ingredients which are dutiable at varying rates, have to be analysed and create many problems. Sugar itself is dealt with by the assessment of its polarisation, and molasses for its proportion of sweetening matter, the duty being graded accordingly. Composite articles are examined by various methods as seems most expedient; the polarimeter may be used, or methods depending on reduction of copper, or simply the density of a solution. The most frequent kinds of samples of this character are confectionery, biscuits, canned fruit and vegetables, sauces and pickles, jam and cereal foods. The number of samples dealt with of almost every description of articles containing sugar and other sweetening matters now averages about 78,000 in the course of a year. A constant check has to be made on a good percentage of samples sent to Customs Laboratory, particularly in composite products, for the presence of small proportions of other dutiable ingredients, and this work calls for much experience. Work that entails considerable analytical skill is the examination of a steady stream of samples of chocolate and other cocoa products. The investigations are chiefly directed to the determination and recognition of cocoa butter. This branch of fats analysis has been extended during the last few years in connection with the Ottawa and General Import Duties. It is now of increased importance to recognise the presence of cocoa butter substitutes, which may be liable to additional duties. In another direction many articles, such as biscuits, in addition to tests for sugar, have now to be examined for coconut oil content, under the Ottawa duties. Not only have these new tariffs increased the volume of the work carried out at Customs but they have made the examination of many samples much more complicated. Practically all the work at this Laboratory is related to the collection of revenue on imports. A good proportion of the Customs samples have to be examined and reported on with considerable speed, to avoid delaying goods, with consequent risk of deterioration or loss of markets. The necessity for rapid working combined with a suitable degree of accuracy in dealing with some 130,000 samples each year is a feature of the work of this section.



Eighteenth-Century Domestic Medicine

A Preliminary Study

MATERIAL for the historical reconstruction of the eighteenth century in its various aspects has of late years been accumulating to such an extent that our knowledge of the century may be regarded as intimate. We know, for instance, that Macaulay was wrong in his description of Dr. Johnson's coat buttons; and many such corrections can be made by experts. The purpose of this article is to refer briefly to the state of domestic medicine during the century—the books consulted by people who could read, the medicines they bought at the shops, and those they made themselves. As far as we are aware, no monograph on the subject exists: probably someone will take up, sooner or later, the study of what is obviously an attractive field for investigation.

Books for general reading on medicine came into vogue long before the eighteenth century, which took over from the seventeenth such "standard" works as George Bate's "Pharmacopœia Bateana" and its English translation, Nicholas Culpeper's "The English Physitian," and the "Synopsis Medicinæ," "Collectanea Medica" and other treatises or compilations by William Salmon. But, as will be remembered, the new century saw a sustained tendency in the direction of simplifying prescribing; and this tendency could not fail to be reflected in such medical books as were intended for public use. The gap between the knowledge of the average physician and that of his educated reader was considerably smaller than it is in the present age of specialised training. We have only space, on this occasion, to glance at five medical authors of the century, whose names we will take in chronological order.

Thomas Dover

THE adventurous career of Dr. Thomas Dover, culminating in a voyage round the world, is well known. In 1732, when he had been in practice in London for some time and was about seventy-two years of age, he wrote "The Ancient Physician's Legacy to his Country," a comparatively short treatise which reached an eighth edition in 1771. From the controversial tone of the book and from other evidence it may be gathered that Dover was not, on the whole, popular among his medical colleagues. In the course of the first few pages (which lead straight into the descriptions of various diseases) he writes: "I AM very sensible that my Stile is not correct, and I shall take no extraordinary Care to polish it. . . . I am very sure that I have travelled more than all the Physicians in Great Britain put together."

The first disease discussed is gout, and it is in this section of the book that his recipe for the powder named after him occurs. We reproduce this as an illustration opposite. It will be noticed that opium and ipecacuanha are each prescribed in the proportion of one part in eleven parts, and that nitre and liquorice are other ingredients. Dover's prescriptions cover a wide range of materia medica, and do not appear to differ materially from those of other physicians of his day. He was undoubtedly fond of mercury. Thus, under the heading "Stone, or Nephritis," he writes: "But you may please to try one Ounce of Quicksilver every Morning for one Month. I have known this do Wonders." He refers to his nickname in these terms:—

"I DESIRE to know, Why I am called the Quicksilver Doctor, by way of Derision? Pray do not you, Gentlemen, Physicians, Surgeons, and Apothecaries, prescribe it almost every Day of your Lives? I aver, you do. Only you disguise it; and I give it in such an open, honest Manner, that

my Patient cannot be deceived in taking it. What is your Ethiops Mineral? . . ."

Near the end of Dover's discussion of this topic, extending to eight pages, he states that Gascoïn's powder "occasions yearly the Loss of many thousand Subjects to the Crown." In the latter part of the volume he has a tilt at apothecaries:—

"I never affronted any Apothecary, unless ordering too little Physick, and curing a Patient too soon, is, in their Way of Thinking, an unpardonable Crime. I must Confess. I could never bring an Apothecary's Bill to three Pounds, in a Fever: Whereas I have known some of their Bills, in this Disease, amount to forty, fifty, and sixty Pounds. If they can't cure with less Charges, I can't forbear saying, That I have the same Opinion of their Integrity, as I have of their Understanding."

There is more to the same effect. The last page of the book contains an acknowledgment, presumably ironical, of an

" TAKE Opium one Ounce, Salt-Petre
" and Tartar vitriolated, each four Ounces,
" Ipocacuana one Ounce, Liquorish one
" Ounce. Put the Salt-Petre and Tartar
" into a red-hot Mortar, stirring them with
" a Spoon till they have done flaming.
" — Then powder them very fine; af-
" ter that slice in your Opium; grind these
" to a Powder, and then mix the other Pow-
" ders with these. Dose from forty to sixty
" or seventy Grains in a Glafs of White-
" Wine Poffet, going to bed. — Cover-
" ing up warm, and drinking a Quart or three
" Pints of the Poffet-Drink while sweating."

IN two or three Hours, at farthest, the Patient will be perfectly free from Pain; and though before not able to put one Foot to the Ground, tis very much if he cannot walk the next Day. When it is taken, keep your Bed till next Day Noon. This Remedy may be taken once a Week; or once a Month.

THE ORIGINAL RECIPE FOR DOVER'S POWDER

error: "I have hitherto been too zealous in recommending one particular Apothecary; but am resolved, for the future,



to let all my Patients make use of any Apothecary they like best; which, I think, is but doing Justice to the Gentlemen of that Profession."

Robert James

ROBERT JAMES, M.D., was thirty-eight years of age when his "Medicinal Dictionary," in three volumes, appeared in 1743. The short dedication to Dr. Mead was written by Samuel Johnson. Whatever may be thought of the quality of James's work, his readers at least had their value in the matter of quantity, as each volume weighs, on a rough guess, 10 lb. or more, and the type is relatively small. The preface, comprising ninety-nine pages, consists of a discursive history of

A

MEDICINAL DICTIONARY;

INCLUDING

PHYSIC, || CHYMISTRY,
SURGERY, || AND
ANATOMY, || BOTANY,

In all their BRANCHES relative to MEDICINE.

TOGETHER WITH A

HISTORY of DRUGS;

An ACCOUNT of their Various

PREPARATIONS, COMBINATIONS, and USES;

AND AN

INTRODUCTORY PREFACE,

Tracing the PROGRESS of PHYSIC, and explaining the THEORIES which have principally prevail'd in all Ages of the World.

With COPPER PLATES.

By R. JAMES, M.D.

VOL. I.

The LORD hath created Medicines out of the Earth, and he that is wife will not abhor them, Ecclesiasticus, Chap. xxxviii. Verſe 4.

Ἱεράκη, περιποιῶν μὴ παύειν ἐν τῷ ἰατρικῷ ἀγῶνι.

HIPPOCRATES.

L O N D O N :

Printed for T. OSBORNE, in Gray's-Inn;

And Sold by J. ROBERTS, at the Oxford-Arms in Warwick-Lane.

MDCCLXIII.

TITLE-PAGE OF JAMES'S DICTIONARY, VOL. I

medicine. The Dictionary is largely a compilation from Greek, Latin and other writers on medicine: the article "Aer," for instance, which extends to twenty-two pages, begins with nine lines ostensibly of the author's own composition, and the rest appears to be quotation interspersed with brief comments. James ingeniously avoids a formal definition in these terms: "What is meant by this Word [air] is so commonly known, that it would be superfluous to attempt to define it."

The plan of the Dictionary is not easy to summarise. Under "Alcali," for example, we have such subheadings as

"DISEASES generated by an ALCALI abounding in the HUMOURS," "All FISH which have not FINS and SCALES," and "HIPPOCRATES ON REGIMEN in ACUTE DISTEMPERS." James, as might have been expected from the patentee of a powder and a pill, was ready to insert a commendation of any of his own medicines when the opportunity arose. Thus, under the heading of "Balsamum," we read: "I shall here briefly make mention of my own liquid spirituous Balsam of Life, which, on account of its surprising and efficacious Qualities, has in many Places acquired an uncommon Reputation." Under "Calculus" he quotes the recipe for Mrs. Stevens's medicine for the stone, as published in "The London Gazette." He proceeds to give five reasons for believing her remedies to be "of some Efficacy, tho' I have never seen any remarkably good Effects from them."

We may dip into a few of the articles of pharmaceutical interest, noting that the recipes are given in English and that the second and third volumes are dated 1745. It is curious to find, in the middle of the eighteenth century, a man of James's reputation recording with apparent approval superstitious practices like that of applying a live puppy to the abdomen for the relief of colic; but this and more of the same kind may be found under "Canis." Similarly, the bone of a stag's heart is credited with various virtues; but unfortunately, we are given to understand, it is frequently adulterated with bones derived from the ox or the sheep. The state of medicine at the time is strikingly shown by the article on contusions, which extends to eight pages: after a lengthy discussion of the nature and *sequelæ* of contusions we find a bewildering list of remedies, internal and external, including fourteen plasters. Here, as elsewhere, is ample choice. The thoroughness with which the study of the subjects treated was undertaken may be instanced by the article on bandages, which occupies nearly twelve pages and has about fifty illustrations. A quaint example of the same factor will be found in the article headed "Indusium. A Shirt, or Shift." The average twentieth-century reader may wonder what this item is doing in a dictionary of medicine. The opening words of the article show the author's intention: "It has been a controverted Point among some Physicians, Whether it is proper to change the Linen in Distempers, or not?" The discussion of this topic fills the greater part of two columns.

The information given regarding laudanum forms one of the most practical articles in the Dictionary: occupying less than three columns, it comprises a selection of formulas with brief comments. (The discursive article on opium occupies twelve and a half pages.) Under "Lauro-Cerasus" we find the interesting record that the first known case of poisoning by cherry-laurel water occurred in 1728, and that till then its toxic properties had not been known. Under "Mel" he gives, in addition to formulas quoted from Wilson, a process for a simple distillate from honey. The liquid (3xxv., obtained from 4 lb.) "is cordial, pectoral, aperient . . . also, good for making the Hairs grow, if the Combs used are moistened with it every Day, or a small Quantity of it be put about the Roots of the Hairs, by means of a Piece of Sponge."

Under "Opodeldoc" we have as a first definition that it is the name of a plaster said to be invented by Mindererus: a cross-reference to "Emplastrum" is given. James continues: "There is a famous popular Ointment, which goes by the Name of *Opodeldoc*; which is said to be thus prepar'd." The formula contains an assortment of roots, herbs, leaves, flowers and seeds, digested in hot spirit of wine with camphor, castoreum and Castile soap. The preparation is highly praised by our author. The succedaneum is much simpler: "Take of Castile Soap, two Ounces; of rectify'd Spirits of Wine, four Ounces; and of Camphine, two Drams; Mix." Under the heading "Pernio" he waxes sceptical for once: "The Oil of Myrrh per Deliquium may be beneficial; and, also, burnt Mice, if we may believe the *Ephemerides Naturæ curiosarum*." Under "Pertussis" we have an eighteenth-century method of dealing with the complaint in young patients:—

"Another empirical Method of curing the Chin-cough, when Medicines prove ineffectual, is to fright the Child, by putting it in the Hopper of a Mill, which makes a terrible Noise, and the Aspect of whose Wheels is dreadful; and by this Method a Chin-cough is sometimes suddenly cured. . . ."

The articles on pills and powders do not disclose much acquaintance with practical pharmacy: the comments preceding and



accompanying the formulas relate chiefly to the therapeutical uses of the medicaments chosen. "Quinquina" occupies nearly twelve pages, consisting of copious extracts from other authors with but little from James himself: tinctures, on the other hand, are dismissed in about six columns, formulas included. Among the numerous illustrations are some showing operations performed by impassive surgeons wearing wigs and laced coats.

Richard Brookes

RICHARD BROOKES, M.D., was better known in his lifetime as an author than as a physician. His "General Gazetteer," first published in London in 1762, went through numerous editions, and he wrote or compiled treatises on other subjects. His "General Practice of Physic" (1st edition 1751, 2nd edition 1754) was, according to the title-page, "Extracted chiefly from the WRITINGS OF THE Most Celebrated Practical PHYSICIANS AND THE MEDICAL ESSAYS, TRANSACTIONS, JOURNALS, and LITERARY CORRESPONDENCE of the Learned SOCIETIES in Europe." Various passages in his introduction make it clear that the book was intended for the reading public of the day as well as for "young Students." He writes:—

"... all Sects and Parties are now banish'd from the Common-wealth of Medicine, the operose Jumbles of Compositions are expung'd from our Dispensatories, and this salutary Art is again reassuming the native Splendour of its original Simplicity."

"... I hope the Public will not be displeased with the Present Attempt, which was not undertaken with a silly Ambition to excel others...."

The numerous prescriptions are given in Latin, and are numbered under each heading: some of the simpler ones could, no doubt, be prepared in the households of learned readers, but the more usual course would be to send a prescription, or its number, to the chemist or the apothecary. That the work was familiar to the laity is suggested by examination of the British Museum copy of the second edition (2 vol.), on one page of which is pinned an English translation, apparently in an eighteenth-century hand, of a prescription for pleurisy.

23 Spirits Lavender Lady	2
Mercurial Ointment Dog	6
Gum Arabic	1
25 Manna & Glauber's Salt Laundry Maid	1. 2.
A bottle of Sarsaparilla	1
28 Adorable quantity of Black pills Lord	16
29 Two Cordial Nervous Draughts M ^{rs} M ^{rs}	3
A Box of Homoeopathic Nervous pills D ^r	3. 6

ITEMS IN AN EIGHTEENTH-CENTURY APOTHECARY'S BILL

Brookes has contrived to render his book pleasantly readable; this is perhaps remarkable in a treatise of this kind, and especially in one which is largely a compilation, with frequent references to Boerhaave, Hoffmann, Sydenham, Sloane, and others. In the section "Of the Gravel and Stone" Brookes indicates the use that medical men were then making of the vogue of Mrs. Stevens's remedies for the stone, for the recipes of which, it will be remembered, she had obtained the sum of £5,000 from Parliament a few years earlier. He writes:—

"The Medicines of Mrs. Stephens have lately been much in vogue, as a Dissolvent; and Dr. Hartley, by leaving out the superfluous part of them, has reduced [them] to the following Form."

The reduction was, in fact drastic. The recipes were brought down to (1) calcined egg-shells, \mathfrak{dij} or \mathfrak{viiss} three times daily in any convenient liquor; each dose was to be followed by (2) a solution of Spanish soap sweetened with honey or white sugar. But Dr. Hales went further in simplification. He "rightly" conjectured that lime water taken

alone was likely to have a good effect in dissolving stone, "which put Dr. Whytt upon making experiments therewith, which have happily succeeded." Dr. Whytt ordered his patients to "swallow in any Form an Ounce of *Alicant Soap* every Day, and drink three Pints or more of *Oyster or Cockle-shell Lime-Water*." The soap might be divided into three doses—perhaps it was as well; and if there was "an invincible Aversion to Soap," the patient might try larger quantities of oyster-shell lime water alone. Directions for diet and for the use of a catheter are also given.

THE GENERAL PRACTICE OF PHYSIC; Extracted chiefly from the WRITINGS OF THE

Most Celebrated Practical PHYSICIANS,

AND

The MEDICAL ESSAYS, TRANSACTIONS,
JOURNALS, and LITERARY CORRESPONDENCE
Of the Learned SOCIETIES in Europe.

To which is prefix'd,

An INTRODUCTION,

CONTAINING

The DISTINCTION of SIMILAR DISEASES,
The USE of the NON-NATURALS,
An ACCOUNT of the PULSE,
The CONSENT of the NERVOUS PARTS,
And a SKETCH of ANIMAL OECONOMY.

*Quin etiam Succos, atque auxiliantia Morbis,
Gramina; quo nimis staret Medicamine Sanguis
Quid faciat Somnos, quid biantia Vulnere claudat
Quæ Ferro cobibenda Lues, quæ cederet Herbis,
Edocuit.*

Stat. Achil.

VOL. II.

By R. BROOKES, M. D.

The SECOND EDITION, with Improvements.

L O N D O N :

Printed for J. NEWBURY, at the Bible and Sun, in St. Paul's
Church-Yard. MDCCLIV.

TITLE-PAGE OF "BROOKES'S "GENERAL PRACTICE OF
PHYSIC," VOL. II

The section on poisons is perhaps the least satisfactory of any in the book, and clearly reveals some of the limitations of eighteenth-century medicine. Brookes does not consider oil of vitriol to be a poison, though he admits that it will kill rapidly. He gives this general classification:—

"All the three Kingdoms have Poisons peculiar to themselves, but the animal Kingdom affords the most subtle, which are communicated by the Bite of mad or venomous Beasts, when they are angered. The mineral Kingdom produces *Arsenicals* and *Mercurials*. And the Vegetable, Herbs and Plants, or their Parts, of a most acrid, noxious and deleterious Quality, such as the most violent *Cathartics*, and *Narcotics*, which are noxious from a sulphureo-vaporous Principle."



His list of poisons is so small that, passing over the animal Kingdom (in which the toad figures as a dangerous enemy of mankind), we can note it in a few lines. The mineral kingdom, he tells us, "furnishes very few real poisons; the only natural one is *Cobalt*; the factitious are *Arsenick*, *corrosive Sublimate* and *Glass of Antimony*. . . . *Quicksilver*, dissolved in acid mineral Spirits, is likewise a Poison; though of itself it is entirely innocent. . . . The most dangerous vegetable Poisons are the true *Hemlock*, *Wolfs-Bane* . . . the deadly *Night-shade*, *Henbane* and *Datura*; to which may be added, the Roots of *Oenanthe Cicutæ facie*, or *Hemlock-Dropwort*." After mentioning the treatment of poisoning by any of these substances, he proceeds: "*Allen* thinks the *Nux Vomica* must be fatal to Mankind, because it will kill Dogs and Cats, but *Lemery* and *Hoffman* deny it." Before closing this section, our author discusses bitter almonds, cocculus Indicus, "drastic purges" such as white hellebore, and one "too frequently given in *America*," the name of which is not disclosed.

On many pages there are archaic words that strike the eye. "Soda," as a synonym for heartburn, is not common in English literature, and apparently remained a purely medical term in that sense till it died out. "Bulimus," for morbid hunger, is another unusual term. The book, like his "Introduction to Physic and Surgery," was printed by John Newbery, founder of the well-known London house of that name. The "Introduction," which includes a dispensatory, is intended primarily for students, and therefore its contents need not be detailed here; it was also designed, however, for "Persons living in the Country, who have not had a liberal Education, and yet are obliged to practise for want of Physicians in their Neighbourhood, more properly qualified."

It was, in fact, not uncommon in the eighteenth century for people of good social position to advise their poorer and less educated neighbours regarding their ailments. The clergy frequently did so; and thus it is not remarkable that John Wesley wrote the manual of advice and recipes that he called "Primitive Physic," a book discussed in THE CHEMIST AND DRUGGIST of June 25, 1921.

John Hill

THE stormy career of John Hill, M.D., who on the strength of a foreign decoration awarded near the end of his life



Black Bryony



Brooklime

ILLUSTRATIONS FROM HILL'S "USEFUL FAMILY HERBAL"

called himself Sir John Hill thenceforth, was outlined in our Special Issue of June 28, 1930. We may add to what was then recorded that the Dictionary of National Biography gives lists of seventy-six genuine and eight doubtful works attributed to him, and is of opinion that in all his controversies he got the worst of it. His industry is obvious from the first part of this statement, and from the latter part we do not propose to draw any inference.

Several of Hill's medical treatises are relatively short; in "The Useful Family Herbal" (second edition, 1755), however, he covered household requirements thoroughly according to his lights. The preface includes, as might be expected, some controversial matter:—

"The Apothecary's Apprentice learns the Names of Plants, that he may win the Gingerbread Book by way of Prize, but when he should come to the Use of them, he neglects them, and often forgets the little he had known so perfectly, that they sell him Vipers Bugloss for Bugle in the Markets, and he knows it is the right, because the Stalk is

painted. Those who search into the Nature in this Province, are not a whit better. I was introduced in Yorkshire, to one Brewer, who had contrived a Dress on Purpose for Herbalizing, and had a Mask for his Face, and Pads to his knees, that he might creep into the Thickets; when I talked with the Man about his Researches, they were after some new Kind of Moss: He never had considered Plants, except to know how they differ from one another."

As examples of his pamphlets may be cited "The Family Practice of Physic: or, a Plain, intelligible and easy Method of Curing Diseases With the Plants of our own Country" (1769); "Virtues of British Herbs" (1771); and "On the Virtues of Sage, in Lengthening Human Life." Hill had herb gardens at Lancaster Gate, Bayswater, and, like James, was ready to extol his own medicines; their sale appears to have been considerable, and continued after his death.

Hugh Smythson

THE most vivacious chapters of Hugh Smythson's "The Compleat Family Physician; or, Universal Medical Repository," comprising "Strictures on Quackery in general, and a candid Examination of several popular Medicines," were referred to in our Special Issue of June 25, 1927. The book, as a whole, conforms with general ideas of what such a treatise should be even better than James's rather overgrown volumes; it is a quarto extending to 1,026 pages in addition to introductory matter, and is printed in a comfortably large type. The

PRICES OF DRUGS,

A T

APOTHECARY'S HALL, LONDON.

	l.	s.	d.		l.	s.	d.
ACID Elixir of Vitriol, } per oz. - - -	0	0	6	Contraerva Powder, per oz.	0	1	0
Egyptiacum, per lb. - -	0	4	4	Colgotha of Vitriol, per oz. -	0	0	6
Ethiops Mineral, per oz. -	0	0	6	Columbia Root, per oz. -	0	1	2
Allum, per lb. - - -	0	0	6	Crab's Claws prepared, per lb.	0	2	0
Aloes, (called Barbadoes } Aloes) per lb. - - -	0	3	0	Cream of Tartar, per lb. -	0	1	6
Alkaline Aloetic Wine, per oz.	0	0	6	Diafordium, per oz. - -	0	0	6
Antimonial Wine, per oz. -	0	0	6	Diachylon Plaster, per lb. -	0	1	8
Armenian Bole, per lb. - -	0	2	6	Elixir Proprietary, per oz. -	0	1	3
Aromatic Species, per oz. -	0	2	0	Emetic Tartar, per oz. -	0	1	0
				English Saffron, per oz. -	0	3	4
				Epilom Salts, per lb. - -	0	0	6

PRICES IN SMYTHSON'S "COMPLEAT FAMILY PHYSICIAN"

scope is wide, including as it does a section on "Diseases peculiar to Seamen, and those of particular Climates" and one on "Celebrated Spas . . . Efficacy of Sea-bathing and Sea Water; and of Medicated Baths and Fumigations." The introduction throws light on medicine as regarded in the household in his day:—

"Of the distillation of *simple waters*, and the composition of such family medicines as claim no acquaintance with the apothecary's shop, little need be said; almost every house produces some notable female, who, with due regard to the plain directions contained in this work, will execute her office with satisfaction to herself and advantage to the convalescent."

After this subtle flattery he discusses the argument that medical knowledge among the laity is undesirable:—

"The Author is aware, that when he earnestly recommends this work to the attention of every individual, he shall be told . . . that medical knowledge in men not designed for practitioners, is a dangerous acquisition, that it is apt to impress them with fears, apprehensions, and fancied indispositions . . . To subdue prejudices of so fatal a tendency, is one of the inducements to this publication. . . .

As we have indicated, there are other authors whose work might well be taken into account in a more complete survey of our subject: a typical example is John Theobald, M.D., two of whose books ran into at least five editions each—"Medulla Medicinæ Universæ" (1st edition 1747) and "Every Man His Own Physician" (1st edition 1764).

A sentence or two may be added on one of the illustrations accompanying this article, a section of an original bill presented to us some time ago. The bill is written on sheets measuring 16 in. by 6½ in. each, and ran from July 3, 1787 to July 5, 1788. It gives a good idea of the types of medicament supplied to patients of good social position by their apothecaries in the latter part of the century.



Pharmacy in Palestine

Advances under the Mandate

By Walter Buchler

JERUSALEM, the Holy City, is divided into two sections, the Old City walled in and crowded with stone houses and narrow streets, and the modern town that has gradually arisen outside its walls.

Pharmacy has developed in Jerusalem, notably in the more modern section, since the British Occupation, when new laws and adequate supervision of the work done by the pharmacist were introduced. Prior to that time the

Pharmaceutical Qualifications

Turks, who governed Jerusalem, did not interfere greatly with those who practised pharmacy or inquire as to what qualifications they possessed. To-day, only those holding qualifications in pharmacy from a recognised University or College may practise in Palestine; and since there is still no College of Pharmacy in the country, pharmacists here have all received their training elsewhere.

Most of the pharmacies in Jerusalem are individually owned. Though the owner of a pharmacy is not necessarily the pharmacist, he must employ a qualified man. There are approximately 30 pharmacies in Jerusalem, about half a dozen of these being



AN ANGLO-AMERICAN PHARMACY, JERUSALEM

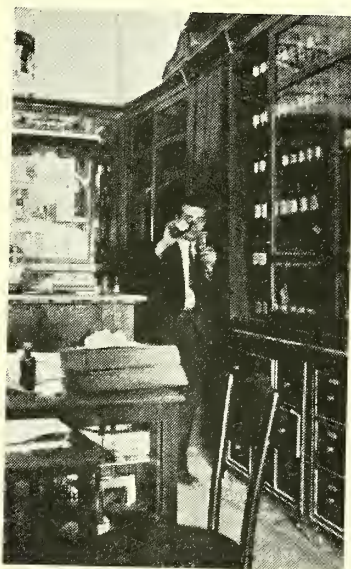
well equipped and comparing with a modern pharmacy. There are, in addition, three or four druggists with wholesale and retail departments.

A pharmacy may employ apprentices, who work under the supervision of a pharmacist. The apprenticeship takes three years, after which the apprentice may stand for an examination qualifying him as an "Assistant Pharmacist." A Commission of qualified men has been formed for this purpose in conjunction with the authorities. These assistants, on qualifying, may replace the qualified pharmacist at noon for two hours, and in the evening from 6.30 until 9.30. Women are entitled to the same privileges as men, and many are already so qualified. Assistant pharmacists are paid from £6 to £10 a month.

Work in a Jerusalem pharmacy is very similar to that in England. Bigger stocks, however, have to be carried, as the wholesale drug stores are not always in a position to supply the regular needs of the pharmacist, who may therefore be unable to get certain items locally. The business of the pharmacist here is mostly in patent medicines. This is accounted for by the presence of a very mixed population and by the cosmopolitan origin of the doctors practising in Jerusalem. The latter come from all parts of the world, but mostly from Europe. Everybody is intent on supporting home

"Assistant Pharmacists"

Patent Medicine Trade



A MODERN BRITISH PHARMACY, JERUSALEM

to the modernisation of Palestine. They will even sacrifice necessities in order to spend money on perfumery. The same applies to toilet requisites in general, French, English and American brands finding a ready demand. Recently several businesses in Jaffa and Haifa have begun to manufacture cheap-grade perfumes, but these do

Perfumery and Toilet Articles

not, of course, compare in quality or finish with the well-known imported brands. The manufacture of soap is an important local industry, located in Haifa and Nablus. The latter soap is more suitable for domestic purposes, whilst the Haifa variety is intended for toilet use. The average pharmacist in Jerusalem does not handle photographic materials.

The pharmacist in Jerusalem has no fixed prices. Prices are fixed to him, but not to the retail buyer. Customers are accustomed to bargain, and it is only in the best pharmacies that they refrain or the pharmacist there abides by his price. The season is more or less the same all the year round, and the volume of trade fluctuates little. The

No Fixed Prices

effects of climatic conditions are experienced in the summer months in the case of such articles as alcoholic preparations, which have to be stored in cellars.

Window displays are neither outstanding nor large. Rents are high and space valuable. Prices are not marked in the window unless a definite article is to be advertised.

The official languages in Palestine are Arabic, Hebrew and English, all three being spoken by the pharmacist and his assistants. Jerusalem is noted for its cosmopolitan population, and many nations are represented. Most of the pharmacists in Jerusalem are Jewish, there being only a few Arab and Christian establishments.

Regulations regarding poisons and drugs are very strict. Only in villages where there are no pharmacies are doctors permitted to keep some drugs for their private patients. Doctors as a rule do not have their own dispensaries, though they are allowed to have them if they employ a pharmacist.

industries, with the exception, perhaps, of the English community, who seem to be more liberal-minded in this respect and will take what is recommended. Doctors, most of whom came from abroad, and were already accustomed to prescribing patent medicines, now tend to prescribe them more than ever. There is no import duty on medicines (patent medicines coming in the same category), and thus these are no dearer than they are abroad, probably even cheaper in some cases.

Perfumery and toilet articles constitute a very important section of the business of the average pharmacy here. French perfumes lead, with British next. The women of the country are becoming more and more enlightened in the regular use of perfumery, owing



Diabetes and Insulin

By Thomas Maben, Ph.C.

THE recent issue of the annual returns of the Registrar-General for the year 1933 affords an opportunity for returning to the subject of diabetes and insulin, regarding which I contributed some notes in April 1934, when I dealt with the statistics available for England and Wales to the close of 1932. The present notes include Scotland as well, and any discrepancy noticed between the figures, compared with those in my previous paper, may be ascribed to this circumstance. Attention has already been drawn to the fact that there has been a progressive alteration in the age constitution of the population of Great Britain, the general tendency being to show an increase in the average age of the community.

Comparison of England and Scotland

The following figures show the comparison between England and Scotland in regard to the mortality from diabetes as shown by the actual number of deaths registered. Taking the census figures of 1931, the population of England and Wales is approximately 39,500,000 and of Scotland 4,800,000, the ratio being very nearly 8.2 to 1. One would naturally expect therefore to find the total number of deaths from diabetes in the two countries to approximate in a similar ratio, and broadly speaking this is what has happened. In 1923 the deaths registered in England and Wales amounted to 4,545 and in Scotland to 528, a ratio of 8.6 to 1; in 1933 there were 6,278 deaths in England and Wales and 711 in Scotland, a ratio of 8.8 to 1. In other words, the Scottish figures have improved slightly. Whether this has been caused by the freer use of insulin in Scotland it is not possible to say; but the fact that the new treatment of diabetes since 1922 has had such remarkably uniform results in both countries is extremely interesting, and to medical men a very valuable substantiation of their faith in insulin.

It will be interesting to give the amounts of insulin used in 1933 in National Health Insurance.

	1932	1933
England	£56,297	£65,210
Wales	£2,461	£2,914
Scotland	£8,802	£9,822
Total	£67,560	£77,946

It will be noted that in spite of the reduction in the price of insulin, the amount spent on the drug in National Health Insurance has gone up considerably. This fact, together with the 36 per cent. increase of deaths from diabetes in twelve years, may induce many superficial observers to conclude that insulin is of little value. The facts adduced in this paper prove the incontestable value of insulin in assuring many years of longer life to diabetic patients.

Age Distribution

The distribution of deaths according to age from diabetes shows a remarkable sequence of similar figures between the two countries. Taking three-year periods, we find that in 1922-24 the average age of the deaths from diabetes was in England and Wales 56 years and in Scotland 56.5 years; in the next triennium (1925-27) the age in England and Wales was 58.18 and in Scotland 58.16; in 1928-30, England and Wales equalled 60.2 years and Scotland 59.00, and in the last triennium (1931-33) the English average was 61.9 and the Scottish 61.2 years. These figures show an increase of about 6 years, and considering that 6,987 died in 1933 they indicate an addition of some thousands of years to the ages which similar diabetics would have reached a dozen years earlier.

Sex Distribution

There is a remarkable difference between the death rates of the sexes in both countries. During the twelve years ended in 1933, standardised death rates per million for men averaged 89 in England and 78 in Scotland, while in the case of females the average in England since 1922 was 102, the highest figure being reached in 1933 (114 per million) and in Scotland the average was 141, the highest figure being reached in 1932 (178 per million), the Scottish figures for females for the

last three years being almost double those for males during the same period. So far as I am aware, no attempt has been made to explain this remarkable difference. It has been suggested that the addition of women to sugar may to some extent account for the figures. Unfortunately it is not possible to apportion the relative consumption of sugar by males and females. The consumption of refined sugar in this country in 1920 was 52 lb. per head of the population, this being considerably lower than the consumption in 1910, which was 78 lb. per head; but the reduction was no doubt due to the fact that in 1920 the influences of the war period had continued for some time following the conclusion of peace. In 1930 the consumption went up to 89 lb. per head of the population, and it is just possible that females may have during these years become more addicted to the use of sugar, thus probably accounting for the greater mortality from diabetes among females—a mortality never previously approached by either sex. This aspect of the case deserves attention by medical men. Fifty years ago diabetes was considered a disease of men, but the figures of the past few years show that women are much more subject to the disease to-day.

Codex Latin

"The young Latin scholars
Who wear Eton collars
Said the Latin for soap was Vinolia."

MAN is an animal: but all animals are not men. Subject to this axiom of logic, the young Latin scholars were right, and it might be well if something of their simplicity had been used in the really terrible attempts at latinisation in the British Pharmaceutical Codex.

In the sixth form I read "De Amicitia" and "De Senectute," and knew a little classical Latin. Twenty years later I read Justinian, and wondered if Tully would shrug his fleshless shoulders in the grave if he saw what *his* Latin had become. I fear he would turn right over to-day if he saw the British Pharmaceutical Codex with its so-called Latin! Our great-grandfathers accepted a certain amount of dog-Latin to fall in line with their medical friends; but who invented the fetish of applying nursery-Latin to all sorts of things which have little or nothing to do with medicine, just because they are mentioned in a medicine book? As to perfumes, why should anyone call citronellal citronellalum, citronellol citronellolum, or geranyl acetate geranylis acetas? Of course no one will do so, except the Codex; the price lists and scientific text-books will hardly change their usual habits. Indeed, in spite of this terrible curse, no one will feel a penny the worse.

And the poor manufacturers of solvents: are they in future to list methylcyclohexanylis oxalas and tricesylisphosphas? I can imagine the compiler scratching his head as to whether *hirudo*, the Latin singular, should be the proper rendering of leeches; another scratch at p. 110—shall it be *lupulus* for hops or not?

Then we have the problem of

TWEEDLED <UM
E

Anethole, a phenol ether, and safrole, also a phenol ether, are spelt with an "e," and "e" in English must be "um" in Latin, so we have anetholum and safrolum. But phenol, cresol and menthol, having no "e," shall have no "um," and are therefore latinised without change. But eugenol and guaiacol, with a taint of both phenol and ether—what must be done with them? The path of least resistance—let the Latin be the same as the English—and no "um." But creosote, a mixture of guaiacol and other phenols, must have its "um" in spite of its constituents having to do without it. Salol, a phenylic ester, apiol, a typical ether, and eucalyptol, an anhydride, are to follow the phenols and have no change from English to Latin; but quinol (hydroquinone), a phenol, because of its accidental popular name, is hydroquinonum. The name totaquina is humorous, but I think phenol-rubrum and rubrum scarlatinum reach the limit. It is true that in phenol-rubrum the hyphen has prevented "rubrum" from being definitely dubbed an adjective; but it *does* rather remind one of the translation of the well-known dish "steak and apples of the earth to the master of the hotel"!—ALEXANDRINUS (2/1).



Trade Notes

BRITISH INDUSTRIES HOUSE, Marble Arch, London, W.1, draw attention to their display of medical and pharmaceutical equipment which is always on view at the above address. The exhibition is described as Britain's permanent medical centre where prospective buyers can examine products of leading manufacturers and obtain up-to-date apparatus at competitive cost. A cordial invitation is extended to buyers to visit the medical section.

PEPSODENT.—Pepsodent, Ltd., Park Royal, London, N.W.10, send us a copy of a letter which has been circulated to chemists advertising a reduced price of Pepsodent and increased size of the tubes, full information concerning which is given elsewhere in this issue. We are informed that the cartons and tubes have been entirely redesigned. New display material is available, and a national campaign in the public Press starts on July 1.

BRITISH CELLOPHANE, LTD., 179 Tottenham Court Road, London, W.1, inform us that they are the owners of the registered trade marks "Cellophane" and "Viscacelle." "Cellophane" is offered direct to the trade by the company, but "Viscacelle" is distributed by Nathaniel Lloyd & Co., Ltd., Burrell Street, Blackfriars, London, S.E.1, who act as agents in Great Britain and Ireland.

SEAJOY CO., 114 Upper Richmond Road, Putney, S.W.15, who recently advertised in the *C. & D.* a plaster for use against travel sickness by sea, land and air, explain that the soothing effect of the plaster when placed in position allays all sense of nausea. It has the advantage that there is no possibility of digestive disturbances which often follow the administration of medicaments internally.

The offices and warehouse of C. J. Hewlett & Son, Ltd., will be closed on June 29, the occasion of the staff outing to Hastings.

DEVELOPING AND PRINTING.—The Swiftsure photographic Works, Ltd., Sutton Coldfield, Warwickshire, in our issue of June 15 drew attention to their developing and printing service. They have been engaged in this work for fifteen years and offer to undertake, free of charge, a sample order so that their service may be tested. [Corrected note.]

"SPUN" OINTMENTS.—Robert Blackie, Shen Works, Tower Bridge Road, London, S.E.1, directs attention to his series of well-known "Spun" ointments, which are obtainable from the distributors mentioned in his advertisement. He also draws attention to Hartz Health Salt, which, it is claimed, contains no sugar or sulphates.

ROZALEX, made by Rozalex, Ltd., Yorkshire House, Cross Street, Manchester, is the term applied to a cream which it is claimed enables motorists, housewives, gardeners and others who suffer from soiled hands to prevent soot, grease, paint, etc., entering the pores of the skin. After applying Rozalex the hands can readily be cleansed. It is claimed that this preparation is superior to solvent substances

such as petrol, paraffin, etc. It is issued in two sizes and is packed on display cards in cartons. Propagatory material is available.

HONEY AND ALMONDS.—Hinds Honey and Almond Cream is the subject of a special bonus to the trade during the period July 15 to August 15 in return for a sunburn window display. The net terms appear to be distinctly advantageous. Show cards and display material, a specimen of which is illustrated, are available on application. It is claimed that this preparation, which is issued by Lysol, Ltd., Raynes Park, London, S.W.20, protects the skin against the effects of sunburn and helps to promote sun tan.



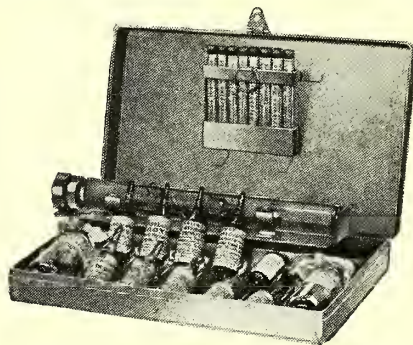
CREPE BANDAGES.—We have received from Grout & Co., Ltd., Great Yarmouth, a neatly-presented brochure which describes the use of crêpe bandages in medical practice. This is an informative booklet, a copy of which will be sent post free on application.

THE telephone number of Bengue & Co., Ltd., 24 Fitzroy Street, London, W.1, has been changed to Museum 8608/9.

DUFAYCOLOR CINE FILM.—Ilford, Ltd., Ilford, inform us that the sale and distribution of Dufaycolor film in the British Empire will be handled by all their representatives and will be available at all Ilford depots. It will be retailed only by approved Ilford dealers and recognised cine dealers. It has been decided that film for processing must be sent in through the dealer and not direct to Ilford, Ltd., by the user, thus giving the dealer the additional contact with the customer which is so desirable. The 16 mm. material will continue to be issued in 50-ft. lengths, and 100-ft. lengths are now available also. It is proposed to increase the range of Dufaycolor material to embrace 9.5 mm., and other forms suitable for use with still cameras. The trade will be notified in due course as these new packings become available.

SUPPLIES OF DRESSINGS.—Arthur Berton, Ltd., Britannia House, 256-260 Old Street, London, E.C.1, announce that they can supply surgical dressings from their London mills. Revised prices with prepaid post order forms are supplied to customers on application.

HYPODERMIC POCKET CASE.—Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C.1, draw attention to their hypoloid hypodermic pocket-case No. 65, which, it is claimed, is convenient to carry and serviceable both in routine practice and in emergencies. The case measures 5½ in. by 3½ in. by 1 in., contains an agla three-piece syringe in spirit-tight container (min. 2L/1 c.c.), an agla needle, one empty glass-stoppered bottle for ethyl alcohol, a similar bottle for distilled water, eleven hypoloid products, and eight tubes of tabloid hypodermic products. These hypoloid and tabloid hypodermic products may be varied according to requirements. The case is of nickel-plated metal.





IMPROVED VACUUM FLASK.—Lip-Vac Flasks (London), Ltd., 24 Ely Place, London, E.C.1, are introducing to the trade a new style of vacuum flask which presents a new pouring stopper made of bakelite. The liquid is easily poured out and a transparent cap is supplied instead of a metal one with the view of eliminating



any suggestion of metallic taste. Orders may be placed with the usual wholesalers for July delivery.

"SILVER FOX" STAINLESS STEELS.—Samuel Fox & Co., Ltd., Stocksbridge, Sheffield, draw attention to a new series of modern stainless steels, which are described in a catalogue that is issued free on request. The object of the catalogue is to assist users of stainless steels to choose the quality essential to their own particular needs. Notes on soldering, brazing and welding are also included, and the stainless steels are obtainable in wire, strip, sheets, bars and plates.

WHITE WINGS TRAVEL REMEDY.—A special offer is made during July of an attractive counter container at reduced rate. The container is illustrated in our advertisement pages. Each tin contains five doses individually packed. It is claimed that the action is immediate and certain without causing unpleasant after-effects. White Wings Travel Pack is issued by Medipac Products, Ltd., 47 Princes Street, Ipswich.

H.B.T. SOAPS advertised in this issue by H.B.T. Medical and Toilet Products, 25 Monteith Row, Glasgow, S.E., will be displayed at the forthcoming Chemists' Exhibition in London. Stocks are obtainable from all wholesale houses in Scotland and England, and in Northern Ireland from Shaw & Jamison, Ltd., and Thomas McMullan & Co., Ltd.

BEACH SLING.—Robel, Ltd., Eagle House, Jermyn Street, London, S.W.1, have issued a novel pack for Buty Tone products. It is intended for use at the beach. It consists of a



waterproof canvas bag with Zipp fastener and contains oil, powder and cream, together with space for cigarettes and matches.

J. M. SMITH & Co. (LONDON), LTD., Arthur Street, Old Kent Road, London, S.E.15, draw attention in this issue to a series of aids to beauty, including vanishing cream, cold cream, plastic wave set, etc. They also list a series of packed goods

and offer to print customer's name and address free on labels for all orders of not less than six bottles of any packed medicinal product.

SLIP LABELS.—Steel, Adams & Co., Jordan Street, Manchester 15, offer newly designed dispensing and slip labels which will not curl up in the label drawer, neither do they adhere together. Samples and prices are available on request, and delivery is promised in from 10 to 14 days.

TECHNICAL BOOKS.—Baillière, Tindall & Cox, 7 and 8 Henrietta Street, London, W.C.2, are advertising in this issue Trease's Textbook of Pharmacognosy and Bentley's Textbook of Pharmaceutics. Further particulars of these and other books on kindred subjects are obtainable on application.

SHAVING SETS FOR LADIES.—The Souplex "Nymph" Shaving Set for Ladies consists of a case of mottled bakelite measuring 3 in. by 2 in., and including razor, blades, soap and brush. Further details are given elsewhere in this issue.

LEIPZIG FAIR.—This famous fair reopens on August 25 and will continue until August 29. Attention is directed to the considerable reduction in German railway fares. Full particulars are obtainable from 34/36 Maddox Street, London, W.1.

Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1935, p. 323.

(From "The Trade Marks Journal," June 12, 1935.)

"OCULEX"; for medicinal chemicals (3). By Cooper, Son & Co., Ltd., 80 Gloucester Road, London, S.W.7. 559,438.

"AYRI LEET" over design of woman with upraised arm; for depilatories and cosmetics (48). By M. Dolan, 136 Cromwell Road, London, S.W.7. 557,303.

"PERWOLL"; for perfumed soaps (48). By Henkel & Cie., G.m.b.H., 67 Heyestrassse, Dusseldorf-Holthausen, Germany. 557,178. (Associated.)

"ZIGANE"; for perfumery, etc. (48). By G. Kennett, 140 Piccadilly, London, W.1. 559,403.

"SOFTEX"; for shampoos (48). By West Electric Hair Curler Co. (of England), Ltd., 8 Kirby Street, Hatton Garden, London, E.C.1. 558,694.

"DIXODOR"; for perfumery, etc. (48). By Dixor, Ltd., 21A St. Leonards Road, Mortlake, London, S.W.14. 558,847. (Associated.)

"O'DEVOTION" and "O'DISCREET"; for perfumery, etc. (48). By E. Hack, 69 Farringdon Road, London, E.C.1. 559,602/606. (Associated.)

(From "The Trade Marks Journal," June 19, 1935.)

"EUCOS"; for chemicals for toilet preparations (1). By Eucos Products, Ltd., 61 Regent House, Regent Street, London, W.1. 553,579.

"ISOFAV"; for photographic plates (1). By I.G. Farbenindustrie A.-G., Grüneburgplatz, Frankfurt-on-Main, Germany. 558,445.

"ARMAC"; for chemicals (2). By Talbot Manufacturing Co. (1926), Ltd., 185 Central Drive, Blackpool. 558,871.

"MANNUS"; for a medicine composed wholly or principally of phenolphthalein (3). By Pickups, Ltd., 30-42 Smedley Street, London, S.W.8. 549,711.

"LAXANIN"; for laxative medicines (3). By C. Notter, Erasmusstrasse 20/24, Berlin, N.W.87, Germany. 558,176.

"CARNEBROS" in cross form on circular design incorporating chemical symbols ("Carnebros" disclaimed); for medicinal chemicals (3). By Carnegie Bros., Ltd., 227-229 Essex Road, London, N.1. 558,127.

"A Z" monogram on circle; for medicinal chemicals (3). By Phillips Yeast Products, Ltd., Park Royal Road, London, N.W.10. 558,742.

"IOVINE"; for preparations of iodine for external use (3). By C. Street, 355 Staines Road, Hounslow Heath, Middx. 559,401.

"SALKEN"; for a medicated saline (3). By Cooper, Son & Co., Ltd., 80 Gloucester Road, South Kensington, S.W.7. 559,437.

"ATLAS" across picture of Atlas supporting the heavens; for medicated sweetmeats (3). By E. Jackson & Co., Ltd., 28A and 29 High Street, Credenon. 559,226.



Marriages

BLATHERWICK—**YORK**.—At Emanuel Church, Loughborough, on June 10, David William Blatherwick, chemist and druggist, to I. L. York.

EVANS—**BEDDARD**.—At Rivertown Congregational Church, Shotton, on June 10, David William Evans, chemist and druggist, Connah's Quay, to Helena Gertrude Beddard.

HESSEY—**PADLEY**.—At All Saints, Eccleshall, on June 20, by the Rev. Canon Mackay, Philip Hessey, chemist and druggist, Sheffield, to Molly Padley, Sheffield.

LARGE—**SQUIRES**.—At St. Peter's Church, Thetford, on June 6, Allen Gordon Large, chemist and druggist, to Margaret Emily Squires.

LITTLE—**MONCRIEFF**.—At St. George's-in-the-Fields Parish Church, Glasgow, by the Rev. W. Newman James, John Kirk Little, chemist and druggist, 34 Minto Gardens, Alva, to Wilhelmina Ross Moncrieff, 482 St. George's Road, Glasgow.

LOCKYER—**SHAND**.—At St. Katharine's Church, Merstham, on June 8, Bernard John Lockyer, chemist and druggist, Frenches Road, Redhill, to Marie Louise Shand, Fordbridge, Merstham.

PARK—**JOHNSTON**.—At Henderson Church, Kilmarnock, on June 10, Gilbert Park, chemist and druggist, 3 Barbadoes Road, Kilmarnock, to C. Johnston.

WALSH—**BUCKLEY**.—At St. Kentigern's Church, Blackpool, on June 5, John J. Walsh, chemist and druggist, Broxbourne, Herts, to Barbara Buckley.

Deaths

BRUMWELL.—At Dutton Hospital, recently, Mr. Herbert Brumwell, retired chemist and druggist, aged eighty-one.

CARTER.—At Scalby, Scarborough, recently, Mr. Charles Edward Carter, chemist and druggist, aged fifty-eight.

FERRIER.—At 69 Southesk Street, Brechin, on June 23, after a brief illness, Mr. Walter Macgill Ferrier, retired chemist and druggist, aged eighty-nine. Mr. Ferrier had a record of seventy years as a chemist in his shop in Brechin. He was predeceased by his wife some years ago.

REED.—At Amble, Northumberland, on June 6, Mr. Jacob George Reed, chemist and druggist. Mr. Reed qualified in 1909.

RICHARDS.—At the Royal Northern Hospital, London, N.7, on June 9, Mr. William David Richards, chemist and druggist. Mr. Richards qualified in 1891.

SAMUEL.—In a London nursing home, on June 3, Mr. Henry Samuel, Ph.C., Market Square, Leighton Buzzard, aged fifty-seven.

SHAW.—At Oldham, recently, Mr. John Clegg Shaw, chemist and druggist, aged twenty-three.

SMALES.—At 123 Redworth Road, Shildon, Durham, on June 11, Mr. Alfred John Smales, retired chemist and druggist, aged seventy-three.

WILLIAMS.—At Portsmouth, on June 10, Mr. Alfred Joseph Williams, chemist and druggist, aged eighty-six.

Wills

Mr. **FREDERICK JOHN FLATMAN**, 108 Western Road, Hove, Sussex, chemist and druggist, who died on April 12 last, aged sixty-seven, left estate gross value £3,846, with net personality £1,299.

Mr. **THOMAS RICHARD HEWLETT**, J.P., Homewood Lodge, Wythenshawe Road, Northenden, Cheshire, founder of the Anchor Chemical Co., Ltd., Manchester, an alderman of the City of Manchester, who died on April 29 last, left estate gross value £91,825, with net personality £90,183.

Personalities

Mr. **J. T. T. ROLFE**, chemist and druggist, Faversham, has been appointed a steward of the Harmony Lodge of Freemasons.

Mr. **H. R. LOWTHER**, chemist and druggist, has been appointed president of a Chamber of Trade formed at Mumbles, Swansea.

Mr. **E. A. ATKINS**, Ph.C., past-chairman of the National Pharmaceutical Union, has been elected president of the Wandsworth Rotary Club, London, S.W.

Mr. **PARKIN S. BOOTH** (Association of Manufacturing Chemists, Ltd., Liverpool and London) has been elected captain of the Bull Bay Golf Club, Amlwch, Anglesey.

PLAYING in the wholesale drug trade golf competition at Pinner Hill on June 18, Mr. F. W. Gamble, Ph.C., director of Allen & Hanburys, Ltd., took the 17th hole (268 yards, bogey 4) in one shot.

WHILE walking on the path at the side of the Royal Military Canal, Mr. H. Barnett, chemist and druggist, Hythe, saw a boy of five fall into the water. Mr. Barnett jumped into the canal and rescued the lad, whose name is unknown.

Mr. **JOHN KEALL**, ex-president of the Pharmaceutical Society, who is a member of the Wandsworth (London) Borough Council, has been appointed one of the representatives of that body on the Board of Governors of the Wandsworth Technical Institute.

The new members of the Portsmouth Pharmaceutical Committee are Mr. H. A. Mecoy (vice Mr. C. H. Baker, Ph.C., resigned) and Mr. T. A. Johnson (who takes the place of the late Mr. W. L. Egerton). The election of the committee has been conducted without a contest for the past twelve years.

WHILE driving his car towards Southport on June 23, Mr. Edward Cyril Bourns, chemist and druggist, Fazakerley, was involved in a collision with another motor car at Netherton Green. Mr. Bourns and his sister-in-law, Mrs. Josephine Clark, were thrown clear, but Mrs. Bourns and Mr. Clark were trapped underneath. They were all taken to the Bootle General Hospital, where Mrs. Bourns was detained. Her condition is not serious.

Mr. **FREDERICK GEORGE MANSFIELD**, the newly-elected chairman of the Pretoria Pharmaceutical Society, was born at Newcastle-upon-Tyne. He was apprenticed in 1909, and joined Lennon, Ltd., five years later. During the Great War Mr. Mansfield served in France. In April 1917 he was severely wounded and spent over a year in hospital. Mr. Mansfield qualified in Johannesburg in 1921. In July 1929 he bought the business of Mr. A. A. Bones in Pretoria.

At the recent open show of the Norfolk and Norwich Canine Society Mrs. Russell Cook, chemist and druggist, Ipswich, was awarded the perpetual challenge cup presented by his Majesty the King for the best exhibit of all breeds. Mrs. Cook was awarded the King's Cup five years ago for one of her bloodhounds, the only other occasion on which it has been won by a bloodhound. Mr. Henry Ridley, chemist and druggist, Ipswich, was also a winner at the same show, being awarded the first and third prizes for Sealyhams.

Business Changes

Mr. **J. H. Z. STALLMAN** has removed to 59 Mark Lane, London, E.C.3. Telephone: Royal 5563.

J. W. COLE & SON, LTD., 248 Infirmary Road, Sheffield, have taken over a business at 138 Burgoyne Road.

Mr. **G. N. GUTTERIDGE**, chemist and druggist, Market Place, Dewsbury, is closing his business as from June 29.

ROBERT BAILEY & SON, LTD. (proprietors of the "Cynta" Manufacturing Co.), removed on June 24 to Dysart Street, Great Moor, Stockport.

Mr. **H. HUTCHESON**, chemist and druggist, has acquired the business of Mr. W. Brownlie, chemist and druggist, Meadow Place, Skelmorlie, Ayrshire. [Corrected note.]



Telegrams :
"Atoleine
Sedist,"
London."



Telephone :
Bermansley
1141

John Bell, Hills & Lucas Ltd.
OUR COLLOIDAL
SUNBURN LOTION IS UNIQUE

Supplied with Chemist's name and address

Send for Sample & Prices

Oxford Works, Tower Bridge Road, London, S.E.1

LILIA
The British Soluble Sanitary Towel
LEADS THE MARKET

"DEPENDABLE
TOBACCO
WHOLESALEERS"

MIXED PARCELS
A SPECIALITY
Established Fifty Years
Price Lists mailed on request.

SINGLETON & COLE, LTD., CANNON ST., BIRMINGHAM

TRADE MARKS

Registered at home and abroad.
Searches made. Oppositions and
appeals conducted. Reports sub-
mitted. Assignments recorded.
Helpful booklet sent gratis on
request.

REGINALD W. BARKER & Co.

56 LUDGATE HILL
LONDON, E.C.4

Established
1886

CITY
5140

THE 'FAIRCHILD'

HIGH-CLASS

DIGESTIVE FERMENTS

AND

PREDIGESTED FOODS

'PANOPEPTON,' 'ZYMINE' PEPTONISING
TUBES, 'PEPSENCIA,' PEPTOGENIC MILK
POWDER, etc.

Originated and Manufactured by

FAIRCHILD BROS. & FOSTER (Inc. N.Y.)

New York. 65 Holborn Viaduct, London, E.C.1

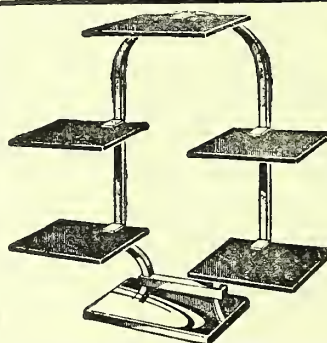
Agents—BURROUGHS WELLCOME & CO.
London, Sydney, Cape Town.

Felsol (Regd.)
for
Asthma

Continuous Propaganda conducted
with the Medical Profession.

P.A.T.A. terms upon request.

BRITISH FELSOL COMPANY, LTD.
15, CAROLINE STREET, LONDON, W.C.1



**Attractive Dis-
play Stand for
the Chemist**

No. CDF 5540

Chromium Plated Dis-
play Stand, 24 ins. high,
mounted on 8 x 5 in.
heavy oblong base. Fitted
complete with five Black
glass shelves,
size 9 x 5 in.
30/-
EACH

May we send you our new
catalogue just published.
No. CD 1616?

DUDLEY & Co. Ltd. HOLLOWAY RD., LONDON, N.1
City Showrooms: 65 Fore St., E.C.

WE SUPPLY
DECORATED TINS
FOR PACKING
OINTMENTS

AND OTHER PRODUCTS.

SAMPLES AND PRICES UPON REQUEST.

THE CALDICOT TIN STAMPING WORKS LTD.
CALDICOT, Nr. CHEPSTOW, Mon.

THE ART OF DISPENSING. Price 8s., by post 8s. 6d.

THE PHOTOGRAPHIC CHEMIST. Price 3s. 6d., by post,
3s. 8d.

THE CHEMISTS' DICTIONARY OF MEDICAL TERMS.
Price 3s. 6d., by post 3s. 8d.

PHARMACEUTICAL FORMULAS (P.F., Vol. I). Price 15s.,
by post 15s. 9d.

PHARMACEUTICAL FORMULAS (P.F., Vol. II). Price 15s.,
by post 15s. 9d.

VETERINARY COUNTER PRACTICE. Price 7s. 6d. net,
by post 8s.

WOOTTON'S CHRONICLES OF PHARMACY. Price 10s. 6d.,
by post 11s. 3d.

THE CHEMIST AND DRUGGIST, 28 Essex Street, W.C.2



THE

CHEMIST AND DRUGGIST

VOL. CXXII.

June 29, 1935

NO. 2890

"Sumer is Icumen In"

THERE are many finger-posts to the changing seasons of the year, all of which have their special significance. We should like to think, however, that so far as the drug trade is concerned the Special Issue of THE CHEMIST AND DRUGGIST is at least an indication that summer, if it has not already arrived, is at any rate not far behind. In this number we have endeavoured to maintain the high standard of its predecessors and, whatever our views may be, the final judgment is with our readers. There are one or two features to which special attention may be directed. We are privileged to describe the Government Laboratory in Clement's Inn, and we understand that this is the first occasion on which the workings of the Laboratory have been told. We are greatly indebted to Sir Robert Robertson, Government Chemist, and the superintendent chemists for their kind assistance in this matter. The title "Science in the Detection of Crime" is given to a description of the new laboratory at the Police College, Hendon, and this account is the first that has been given in any lay or technical newspaper. "Medicine in Ancient Ireland" is a subject which will be of special interest, and we may add that Irish medicine has not had the same attention given to it as has the ancient medicine of other countries. This article puts on record much that will interest pharmacists not only in Ireland but elsewhere. While on the subject of Ireland attention may be directed to the article by Professor Small on the Belfast Botanic Gardens. An unusual subject, "Peloids, Pelology and Pelotherapy," has been admirably treated by Dr. S. Judd Lewis, who is an authority on the subject. Mud baths have, of course, gone beyond a medicinal use, for it is common knowledge that in beauty parlours mud-pack treatment is part of the process to which seekers after beauty gladly submit. In the space of four pages the subject of domestic medicine in the eighteenth century is briefly outlined, with illustrations. Hints on salesmanship are almost as numerous as the leaves in Vallambrosa, but our view is that there is still something left that could be said in regard to the relationship between knowledge of goods and ability to sell. This, we hope, has been said in our article "The Pharmaceutical Salesman." Examples of window dressing in London, Paris and New York are featured, and pharmacy in West China as well as in Palestine is briefly mentioned. Informative articles are given on the Chinese drug ginseng and Japanese agar. On the lighter side a tale dealing with what might happen if drugs and essential oils were personified is unfolded with the title "The King of Cloves Holds Court." The cover, which is printed in silver and blue, is a reminder of the Jubilee year. In a review of this nature it is fitting also to draw attention to the advertisement pages which constitute, perhaps, the best and most topical guide that exists to commercial pharmacy in every branch.

"Free List"—Official Rulings

In March last H.M. Treasury issued Exemption Order (No. 7), under which SOLID NATURAL RESINS, but not including gum resins, damar and amber were added to the Free List under the Import Duties Act, 1932, and became free imports. At that time we had many inquiries from the trade as to whether, in our opinion, certain products were, or were not, covered by this general and indefinite description. We believe that during the succeeding weeks consignments of, for instance, dragons blood, landed at some ports were passed through free of duty, while parcels brought in at other ports were held up by the water-side authorities, pending investigations. Inquiry by firms interested elicited the reply that Customs . . . "were unable to furnish a list of all the products which are exempt from duty under the Order." . . . Thus the trade was left with one more hazard, and a quite unnecessary one, to contend with in their commercial activities. It was, at that time, only by the experience gained from making importations that the trade could gradually discover what products were, according to Customs, free or dutiable imports. We commented on this unsatisfactory position (*C. & D.*, April 27, 1935, p. 515), and on May 8 submitted to Customs on behalf of the trade, a list of products, with a request that we should be informed whether, in the opinion of the department, they were exempted from duty under the No. 7 Exemption Order, 1935.

Official Rulings

Under date June 20, Customs replied, furnishing the desired information, which, summarised, is as follows:—

Exempted from duty under No. 7 Exemption Order, 1935: Sandarac, guaiacum resin, benzoin, dragons blood, mastic, Zanzibar copal, American copal, New Zealand copal, West African copal, Manila copal, elemi and gum accroides.

Exempted under No. 6 Exemption Order, 1934: Rosin (colophony).

Exempted under No. 4 Exemption Order, 1932: Crude araroba.

Exempted under Ottawa Agreements No. 3 Order, 1932: Shellac.

Exempted under No. 4 Exemption Order, 1935: Balsam of Tolu and scammony root in a dried state, not chopped, ground, manufactured or prepared.

The department adds that such products as Burgundy pitch, gamboge, myrrh, olibanum, ammoniacum, galbanum, asafoetida, Canada turpentine, copaiba, balsam of Peru and storax, continue liable to the 10 per cent. *ad valorem* duty. Customs reference for these rulings is 223238/35. Belated as they are, we believe these official interpretations of the various Orders mentioned will be welcomed by the trade, but, once again, we ask, why cannot Customs publish them at the time the Orders come into operation? In the ordinary course of their business importers and consumers need to be able quickly to calculate the cost of their goods, landed and cleared through Customs. With the considerable number of exemptions and additional duty Orders already in force, many of which are anything but specimens of clarity, and of which there is no official up-to-date and complete list published at frequent intervals, the business of importing the very wide range of products that may or may not be affected is becoming involved and hazardous.



The Belfast Conference of 1898

IT will be thirty-seven years next August since the British Pharmaceutical Conference last met in Belfast. Those who were present on that occasion and are again attending will be struck with the remarkable signs of progress on every side. Not only has Belfast developed in population and architecturally, but it has become the capital of the new State of Northern Ireland set up in 1921, while the Queen's College in which the Conference of 1898 met has become a University set up by Royal Charter in 1908.

Progress has not been confined to national and civic affairs. In no sphere of activity will this be more apparent than in that of pharmacy. Northern Ireland now possesses a Pharmaceutical Society of its own with splendid new headquarters at 73 University Street, Belfast, opened by the Minister of Home Affairs, Sir Dawson Bates, two years ago. This was set up under the Pharmacy and Poisons Act (Northern Ireland), 1925: the Council now consists of nineteen members, twelve elected by the pharmacists, three by the druggists, two representatives for Queen's University, one from the wholesale drug trade, and one from the Medical Committee of Northern Ireland. Mr. Horatio Todd, J.P., who retired from the Council last October, was the first president, and of the original Council nine members remain. In preparing the educational syllabus the Society was fortunate to have the services of Professor James Small, the well-known botanist, who is also a pharmacist and a member of the Council. The Society is already in a strong financial position, having a substantial balance after purchasing and equipping its new premises. Mr. Fred Storey, the president of the Society, is also president of the Chemists' and Druggists' Society of Ireland, an office which he has held for fifteen consecutive years, and the secretary is Mr. David L. Kirkpatrick, who is known in the trade all over the Six Counties.

Three Veterans

It is interesting to note that three members of the present Council were on the Conference Committee in 1898. These are Mr. Samuel Gibson, J.P., the treasurer of the Society (who has been laid aside by illness for some time), Dr. S. E. A. Acheson, the representative of the Ulster Medical Committee (who at that time was a chemist carrying on business in Cromac Street), and Sir Thomas McMullan, the wholesalers' representative. Dr. Victor Fielden, who was on the Committee, was one of the University representatives on the Council from its formation until last October, when he retired, but his connection with the Society is still retained through his position as examiner in pharmacy. Other members of the Local Executive Committee who survive are Mr. W. J. Gibson, brother of Mr. Samuel Gibson, and Mr. R. W. McKnight. Mr. McKnight, who, with the late Mr. W. J. Rankin, was local secretary of the Committee, is still a respected figure in the trade. His kindly colleague, Mr. Rankin, passed away a few years ago, but the family association with pharmacy is being worthily carried on by his son, Mr. W. J. Rankin, treasurer of the Ulster Retail Drug Trade Association. Another prominent figure of the last Conference who has joined the majority is Mr. James Tate, Royal Avenue, whose son, Mr. Walter Tate, is now a member of the Council and is convener of one of the Conference committees. Mr. J. C. C. Payne, J.P., the chairman of the old Committee, has long since passed away, as has Sir James Haslett, M.P.; the handsome statue to his memory in the City Hall grounds will interest the delegates who recall his witty speech on the opening day of the Conference. (The drug trade has still its knight in the person of Sir Thomas McMullan, who received the honour in 1929 for many years of public service.) Mr. D. W. Elliott, of Shaftesbury Square, for many years an active member of Belfast Board of Guardians, is no more with us, and others on the Committee who have gone are Mr. Johnston Montgomery, of Royal Avenue, Mr. T. N. Moffitt, of Crumlin Road, and Mr. James Guiler, of Ormeau Road, long one of the examiners of the Pharmaceutical Society of Ireland. The genial Mr. Paddy Lyons and Mr. J. H. Shaw have also gone, as have those stalwarts of the wholesale trade, Mr. Samuel Clotworthy and Mr. John Watson of Donegall Street and Mr. William Jamison of Shaw & Jamison,

Town Hall Street. Others of the Committee who "have crossed the bourne" many years ago are Mr. Thomas Green, Mr. R. Campbell and Mr. J. Richardson. Dr. D. H. Tweedie, Antrim Road, one of the old pharmacists, is still in medical practice.

Other local representatives who took part in the proceedings in Queen's College on August 9, 1898, have passed away. These were Sir James Henderson (Lord Mayor), the Rev. Dr. Thomas Hamilton (President of Queen's College), and Sir William Whitla, L.P.S.I. (Professor of Materia Medica at Queen's College). The vote of thanks to the president, Dr. Charles Symes, Ph.C., for his opening address was proposed by Sir James Haslett, and Mr. J. C. C. Payne (chairman of the Local Committee) seconded.

The Proceedings

The list of contributors of the twenty-five papers presented evokes many memories. Among distinguished pharmacists no longer with us we recall Dr. G. Claridge Druce, who spoke on the Irish flora and on the botanical nomenclature of the British Pharmacopœia, Mr. John C. Umney, who presented two monographs on essential oils, Dr. J. C. McWalter, who discussed animal materia medica, and Mr. Peter MacEwan (afterwards editor of THE CHEMIST AND DRUGGIST), who explained the position of pharmacists in relation to the revision of the Pharmacopœia. Of the readers of papers still living we may instance Mr. (now Dr.) E. J. Parry, whose subject was oil of eucalyptus, Mr. W. A. H. Naylor, who discussed green extracts, Mr. D. Lloyd Howard, who collaborated with Mr. David Howard in a monograph on the basicity of quinine sulphate, Mr. E. Saville Peck, who spoke on reduced iron, Dr. H. A. D. Jowett, who presented papers on the hypophosphites and on the mydriatic alkaloids, Mr. F. C. J. Bird, who discussed galenical pharmacy, and Mr. H. Wippell Gadd, who gave a wholesaler's view of galenicals. The social functions were evidently enjoyable, bringing well-deserved compliments for the various committees in charge of them. And from the list of 204 members and visitors who signed the attendance book we have selected the following representative names in addition to those already mentioned:—Mr. S. R. Atkins, Mr. C. S. Ashton, Mr. F. E. Bilson, Mr. and Mrs. F. W. Branson, Mr. T. Maltby Clague, Mr. J. E. Connor, Mr. and Mrs. H. Conyngham, Mr. and Mrs. W. L. Currie, Mr. J. L. Ewing, Mr. E. H. Farr, Mr. W. J. Hardy, Mr. J. Rutherford Hill, Mr. E. M. Holmes, Mr. John Humphrey, Mr. P. Kelly, Mr. G. Lunan, Mr. W. Martindale, Mr. J. Moss, Mr. F. Ransom, Mr. and Mrs. W. H. Saunders, Mr. W. W. Savage, Mr. Charles Thompson, Mr. W. P. Want, Mr. W. F. Wells, Mr. S. W. Woolley, and Mr. C. G. Yates.

TRANSFER OF INSURANCE DISPENSING BUSINESS.—When such a business is sold, it is important for both vendor and purchaser to take action with regard to the contract for dispensing made with the local insurance committee. It is natural to expect that there will be no break in the dispensing service given to insured persons; but it is essential, in order to ensure payment to the new owner for any dispensing he does, that there shall be also continuity of contract. No payment is ordinarily made by an insurance committee for work done during a period when no contract is in force, and therefore the new owner must take steps to see that his contract for dispensing begins when the retiring owner's contract terminates. So soon as the date of transfer is known both parties should communicate with the insurance committee, the vendor sending his resignation from the panel and the purchaser notifying his desire to join the panel. The new contractor having been accepted by the insurance committee, it is then desirable to see that the two periods of dispensing are kept separate. If the transfer has taken place at any date other than the first day of a month, at the end of that month two accounts and two bundles of prescriptions should be sent to the pricing office, each representing a different period of ownership.



Medicine in Ancient Ireland

With a Brief Outline of Developments in the Middle Ages

By Lilian G. Ping



THE earliest medical notions and practices of the Irish are revealed in the traditions and legends brought by the Celtic immigrants who began to arrive in Ireland in the sixth century B.C. These, with later modifications and additions, are preserved in the Romantic and Historical Tales and

Annals, many of which still exist in manuscript form. The names of the most renowned of the tribes must be mentioned, for they crowd the stories of the Heroic Age, and around them and their kings and chieftains are centred the tales of healing—and of the infliction of disease. They were the Partholonians, the Nemedians, the Firbolgs, the Tuatha de'Danann, and the Milesians. Almost all the recorded medical treatment in ancient Ireland is directed to the healing of wounded warriors. The physicians and surgeons attached to the tribal kings were highly honoured, and many of their names have been preserved. Exalted far above all others stands Diancecht, the mythical physician of the Tuatha de'Danann, whose name signifies "vehement power." He became the Irish God of Medicine. With Diancecht, his son Miach and his daughter Airmedh, both also outstanding physicians, Irish medicine originated—and pharmacy likewise, for, as a result of certain events in their lives

(that had been struck off) and he said, 'joint to joint of it and sinew to sinew . . . [i.e., he recited a spell over it] and he healed Nuada in thrice three days and nights. The first seventy-two hours he put it over against his side, and it became covered with skin. The second seventy-two hours he put it on his breasts. The third he would cast white . . . of black bulrushes when they were blackened in fire. That seemed evil to Diancecht. He flung a sword on the crown of his son's head and cut the skin down to the flesh. The lad healed the wound by means of his skill. Diancecht smote him again and cut the flesh till it reached the bone. The lad healed this by the same means. He struck him the third blow and came to the membrane of his brain—then he struck the fourth blow and cut out the brain, so that Miach died, and Diancecht said that the leech himself could not heal him of that blow. Thereafter Miach was buried by Diancecht and herbs 365, according to the number of his joints and sinews, grew through the grave. Then Airmedh opened her mantle and separated those herbs according to their properties. But Diancecht came to her and he confused the herbs so that no one knows their proper cures—unless the Holy Spirit should teach them afterwards. And Diancecht said 'If Miach be not, Airmedh shall remain.'"

The words "unless the Holy Spirit should teach them" are an interpolation of Christian times.

Physicians in the Annals

The names of other great physicians are also recorded in Celtic Irish annals. One interesting early medical register reads: "The first doctor that was in Erin was Capa; for the healing of the sick in his time he was all-powerful. Eaba, the female physician who accompanied the lady Ceasir into Erin, was the second doctor; Slanga, the son of Parthalan (who came into Erin with Parthalan), was the third doctor. Fergua, the grandson of Crithinbel was the fourth doctor (who came into Erin with Nemed)." Female physicians were common in ancient Ireland, and it is interesting to recall that the mother of Isolde was a famous leech.

Among the therapeutic means employed, and described in the Tales, the medicated bath stands out very prominently. During a fierce battle Diancecht chose a *slán* or "health-giving" well, and into it put sanative herbs culled with the knowledge of long experience from wherever in Ireland they were known to grow. This, however, was not sufficient to constitute a healing bath, for the inherent



WARRIOR FROM THE BOOK OF KELS (Seventh-century MS.)

KING NUADA'S ILLNESS (British Museum MS.)

many healing herbs were created. The story is here reproduced in the Irish text from the only surviving account.

King Nuada's sword hand had been struck off in a great battle between the invading Tuatha de'Danann and the aboriginal inhabitants of Ireland. The means taken to restore it involved an unsurmounted disagreement between doctors: Diancecht fashioned a marvellous hand of silver, but Miach's opinion was that the case demanded magico-medical treatment. Translated, the text reads:—

"Now Nuada was in his sickness and Diancecht put on him a hand of silver with the motion of every hand therein. That seemed evil to his son Miach. He went to the hand



potency of the simples could be released only by the magic might of spells chanted over them:—

"This then is what used to put fire into the warriors who were slain there, so that they were swifter on the morrow: because Diancecht and his two sons and his daughter Airmedh were singing spells over the well named. Their mortally wounded became whole through the might of the chant of the four leeches who were about the well."

Similarly there were healing rivers. The great hero Cúchulainn was treated by this means: they

"carried him to the burns and rivers in order that against the current of those streams they should bathe and wash his hurts and wounds and gashes. Because into those waters the Tuatha de'Danann practised to throw balsamic plants and herbs of health for aid and relief to Cúchulainn; so much so that with these simples the rivers' surface was chequered over green."

The Irish leeches were skilled, too, in the preparation of herbal draughts for the sick.



CAPTIVE DRINKING
(Book of Kells)

In one of the Tales a description is given of a "healing corps" such as always accompanied an army at war. Finghin the leech has "an exceedingly numerous corps, bright-faced and arrayed in a special garb; every man at his waist carries a firbolg used by them as receptacles of their medicaments." It is pleasant to learn that army physicians willingly gave aid to enemy wounded. One recorded case was that of the renowned warrior of Ulster, Cethern, covered with wounds in battle with the Connaught army. No Ulster leech being available a request sent to the enemy camp met with immediate response by the arrival of physicians. More than one interest-

ing record provides evidence that the ancient Irish practised a form of hypnotism in a mystic rite known as the *Tiamh Las* or "Trance Light." The procedure is described in one of the historical Tales. In this case hypnotic divination is employed to ascertain who should be the next king of Erin. The ceremony of the "Bull Feast" was held for the purpose:—

"Thus was the Bull Feast prepared, namely, a white bull was killed and one man eat enough of his flesh and of his broth; he slept under that meat; a Charm of Truth was pronounced upon him by four Druids; and he saw in a dream the shape of the man who should be made king there, and his form and his description, and the sort of work he was engaged in. The man screamed out of his sleep and described what he saw to the kings, namely, a young, noble, strong man, with two red streaks around him, and he sitting over the pillow of a man in a decline, in Emain Macha."

A messenger sent post haste to Emania learned that the circumstances seen by the man in trance obtained there at that very moment: a young noble, Lugaidh Reoderg, actually was "solacing his tutor, that is, Cúchulainn, who is in his bed of decline." Cúchulainn at once instructed Lugaidh Reoderg in his regal duties, administered the oath to him and sent him to Tara, where he was proclaimed king.

The Irish Tales

THE Irish Tales provide evidence, not only of healing but of the infliction of disease and death by supernatural

means known generally as *druidecht*, i.e., "druidism," even when the practitioner was not a professional Druid but a common sorcerer, witch or necromancer. The term applied to malevolent magical practices of all kinds. The Irish lived in constant dread of them. One of the most deadly was the maledictory incantation called the *glam dichenn*; this could sap the vitality of an army in battle and render it inert, kill a herd of cattle or prevent a cow from giving milk, could ruin the crops in a whole district, send a man into a mortal decline, or "bring constraint on his urine," raise blisters on his face, and indeed inflict any ill. In its more venomous form the satire of a poet was called a *glam dichenn* and with reason, as a typical case well illustrates. King Bres was not popular—he omitted to offer the customary courtesies, hospitalities and amenities to his chiefs:—

"The chiefs of the Tuatha de'Danann murmured greatly against him for their knives were not greased by him and how often they visited him their breaths did not smell of ale. Moreover, they saw not their poets or their bards or their lampooners or their harpers or their pipers or their horn-blowers or their jugglers or their fools amusing them in the household. They did not go to the contests of their athletes. They saw not their champions proving their prowess at the king's . . . Once the poet came a-guesting to Bres' house. He entered a cabin, narrow, black, dark, wherein there was neither fire, nor furniture, nor bed. Three small cakes and they dry were brought to him on a little dish. On the morrow he arose and was not thankful. As he went across the garth he said:—

Without food quickly, in a dish:
Without a cow's milk whereon a calf grows:
Without a man's abode under the gloom of night:
Without paying a company of story-tellers
Let that be Bres' condition.

'So there is no amain (vitality?) in Bres,' quoth he. Now that was true: nought save decay was on him from that hour. That is the first Satire that was made in Ireland."

The person uttering the *glam dichenn* adopted a horrific posture which enhanced the devitalising power of the spell: it is described as "One foot, one hand, one eye," which appears to mean that he stood on one foot, stretched out one hand, and closed an eye. The effects of such spells were so deadly through their influence upon the mind of the victims that the law imposed penalties, at some time, upon those who employed them, and classed as "demon banquets" the festivities at which sorcerers and satirists were present.

Belief in the Evil Eye and its power to induce debility, languor, disease and ultimately death in man and beast is heard of in Ireland from prehistoric times down to the present. The mythical account tells of "Balor of the Mighty Blows," the great Formorian champion, who had an enormous eye which he opened only on the battlefield, and then it needed four men with hooks to raise the lid: one malign glance and the whole opposing army was utterly debilitated. In one of the later Tales the leech pronounces, after observing his patient: "*Rottáirill súil nát-atbendach*," "an eye that sains not has regarded thee."

The Brehon Laws

THE ancient laws of Ireland—the Brehon Laws—provide a rich mine of information relating to Irish medicine. This, the oldest European code of laws, was brought by the Celts when they settled in Ireland. Written down in the course of time, it remained, with additions and modifications, in use until the beginning of the seventeenth century, when it was finally abolished. A page of these Laws is here reproduced.

Written in the oldest dialect of the Irish language, they present difficulties of interpretation and translation, often almost insuperable, for the text abounds in obscurities and



Samail rogab lairac doirg. ^{1. qor} ^{2. daplancio} ^{3. dafre} ^{4. cjo} ^{5. n} ^{6. n} ^{7. n} ^{8. n} ^{9. n} ^{10. n} ^{11. n} ^{12. n} ^{13. n} ^{14. n} ^{15. n} ^{16. n} ^{17. n} ^{18. n} ^{19. n} ^{20. n} ^{21. n} ^{22. n} ^{23. n} ^{24. n} ^{25. n} ^{26. n} ^{27. n} ^{28. n} ^{29. n} ^{30. n} ^{31. n} ^{32. n} ^{33. n} ^{34. n} ^{35. n} ^{36. n} ^{37. n} ^{38. n} ^{39. n} ^{40. n} ^{41. n} ^{42. n} ^{43. n} ^{44. n} ^{45. n} ^{46. n} ^{47. n} ^{48. n} ^{49. n} ^{50. n} ^{51. n} ^{52. n} ^{53. n} ^{54. n} ^{55. n} ^{56. n} ^{57. n} ^{58. n} ^{59. n} ^{60. n} ^{61. n} ^{62. n} ^{63. n} ^{64. n} ^{65. n} ^{66. n} ^{67. n} ^{68. n} ^{69. n} ^{70. n} ^{71. n} ^{72. n} ^{73. n} ^{74. n} ^{75. n} ^{76. n} ^{77. n} ^{78. n} ^{79. n} ^{80. n} ^{81. n} ^{82. n} ^{83. n} ^{84. n} ^{85. n} ^{86. n} ^{87. n} ^{88. n} ^{89. n} ^{90. n} ^{91. n} ^{92. n} ^{93. n} ^{94. n} ^{95. n} ^{96. n} ^{97. n} ^{98. n} ^{99. n} ^{100. n} ^{101. n} ^{102. n} ^{103. n} ^{104. n} ^{105. n} ^{106. n} ^{107. n} ^{108. n} ^{109. n} ^{110. n} ^{111. n} ^{112. n} ^{113. n} ^{114. n} ^{115. n} ^{116. n} ^{117. n} ^{118. n} ^{119. n} ^{120. n} ^{121. n} ^{122. n} ^{123. n} ^{124. n} ^{125. n} ^{126. n} ^{127. n} ^{128. n} ^{129. n} ^{130. n} ^{131. n} ^{132. n} ^{133. n} ^{134. n} ^{135. n} ^{136. n} ^{137. n} ^{138. n} ^{139. n} ^{140. n} ^{141. n} ^{142. n} ^{143. n} ^{144. n} ^{145. n} ^{146. n} ^{147. n} ^{148. n} ^{149. n} ^{150. n} ^{151. n} ^{152. n} ^{153. n} ^{154. n} ^{155. n} ^{156. n} ^{157. n} ^{158. n} ^{159. n} ^{160. n} ^{161. n} ^{162. n} ^{163. n} ^{164. n} ^{165. n} ^{166. n} ^{167. n} ^{168. n} ^{169. n} ^{170. n} ^{171. n} ^{172. n} ^{173. n} ^{174. n} ^{175. n} ^{176. n} ^{177. n} ^{178. n} ^{179. n} ^{180. n} ^{181. n} ^{182. n} ^{183. n} ^{184. n} ^{185. n} ^{186. n} ^{187. n} ^{188. n} ^{189. n} ^{190. n} ^{191. n} ^{192. n} ^{193. n} ^{194. n} ^{195. n} ^{196. n} ^{197. n} ^{198. n} ^{199. n} ^{200. n} ^{201. n} ^{202. n} ^{203. n} ^{204. n} ^{205. n} ^{206. n} ^{207. n} ^{208. n} ^{209. n} ^{210. n} ^{211. n} ^{212. n} ^{213. n} ^{214. n} ^{215. n} ^{216. n} ^{217. n} ^{218. n} ^{219. n} ^{220. n} ^{221. n} ^{222. n} ^{223. n} ^{224. n} ^{225. n} ^{226. n} ^{227. n} ^{228. n} ^{229. n} ^{230. n} ^{231. n} ^{232. n} ^{233. n} ^{234. n} ^{235. n} ^{236. n} ^{237. n} ^{238. n} ^{239. n} ^{240. n} ^{241. n} ^{242. n} ^{243. n} ^{244. n} ^{245. n} ^{246. n} ^{247. n} ^{248. n} ^{249. n} ^{250. n} ^{251. n} ^{252. n} ^{253. n} ^{254. n} ^{255. n} ^{256. n} ^{257. n} ^{258. n} ^{259. n} ^{260. n} ^{261. n} ^{262. n} ^{263. n} ^{264. n} ^{265. n} ^{266. n} ^{267. n} ^{268. n} ^{269. n} ^{270. n} ^{271. n} ^{272. n} ^{273. n} ^{274. n} ^{275. n} ^{276. n} ^{277. n} ^{278. n} ^{279. n} ^{280. n} ^{281. n} ^{282. n} ^{283. n} ^{284. n} ^{285. n} ^{286. n} ^{287. n} ^{288. n} ^{289. n} ^{290. n} ^{291. n} ^{292. n} ^{293. n} ^{294. n} ^{295. n} ^{296. n} ^{297. n} ^{298. n} ^{299. n} ^{300. n} ^{301. n} ^{302. n} ^{303. n} ^{304. n} ^{305. n} ^{306. n} ^{307. n} ^{308. n} ^{309. n} ^{310. n} ^{311. n} ^{312. n} ^{313. n} ^{314. n} ^{315. n} ^{316. n} ^{317. n} ^{318. n} ^{319. n} ^{320. n} ^{321. n} ^{322. n} ^{323. n} ^{324. n} ^{325. n} ^{326. n} ^{327. n} ^{328. n} ^{329. n} ^{330. n} ^{331. n} ^{332. n} ^{333. n} ^{334. n} ^{335. n} ^{336. n} ^{337. n} ^{338. n} ^{339. n} ^{340. n} ^{341. n} ^{342. n} ^{343. n} ^{344. n} ^{345. n} ^{346. n} ^{347. n} ^{348. n} ^{349. n} ^{350. n} ^{351. n} ^{352. n} ^{353. n} ^{354. n} ^{355. n} ^{356. n} ^{357. n} ^{358. n} ^{359. n} ^{360. n} ^{361. n} ^{362. n} ^{363. n} ^{364. n} ^{365. n} ^{366. n} ^{367. n} ^{368. n} ^{369. n} ^{370. n} ^{371. n} ^{372. n} ^{373. n} ^{374. n} ^{375. n} ^{376. n} ^{377. n} ^{378. n} ^{379. n} ^{380. n} ^{381. n} ^{382. n} ^{383. n} ^{384. n} ^{385. n} ^{386. n} ^{387. n} ^{388. n} ^{389. n} ^{390. n} ^{391. n} ^{392. n} ^{393. n} ^{394. n} ^{395. n} ^{396. n} ^{397. n} ^{398. n} ^{399. n} ^{400. n} ^{401. n} ^{402. n} ^{403. n} ^{404. n} ^{405. n} ^{406. n} ^{407. n} ^{408. n} ^{409. n} ^{410. n} ^{411. n} ^{412. n} ^{413. n} ^{414. n} ^{415. n} ^{416. n} ^{417. n} ^{418. n} ^{419. n} ^{420. n} ^{421. n} ^{422. n} ^{423. n} ^{424. n} ^{425. n} ^{426. n} ^{427. n} ^{428. n} ^{429. n} ^{430. n} ^{431. n} ^{432. n} ^{433. n} ^{434. n} ^{435. n} ^{436. n} ^{437. n} ^{438. n} ^{439. n} ^{440. n} ^{441. n} ^{442. n} ^{443. n} ^{444. n} ^{445. n} ^{446. n} ^{447. n} ^{448. n} ^{449. n} ^{450. n} ^{451. n} ^{452. n} ^{453. n} ^{454. n} ^{455. n} ^{456. n} ^{457. n} ^{458. n} ^{459. n} ^{460. n} ^{461. n} ^{462. n} ^{463. n} ^{464. n} ^{465. n} ^{466. n} ^{467. n} ^{468. n} ^{469. n} ^{470. n} ^{471. n} ^{472. n} ^{473. n} ^{474. n} ^{475. n} ^{476. n} ^{477. n} ^{478. n} ^{479. n} ^{480. n} ^{481. n} ^{482. n} ^{483. n} ^{484. n} ^{485. n} ^{486. n} ^{487. n} ^{488. n} ^{489. n} ^{490. n} ^{491. n} ^{492. n} ^{493. n} ^{494. n} ^{495. n} ^{496. n} ^{497. n} ^{498. n} ^{499. n} ^{500. n} ^{501. n} ^{502. n} ^{503. n} ^{504. n} ^{505. n} ^{506. n} ^{507. n} ^{508. n} ^{509. n} ^{510. n} ^{511. n} ^{512. n} ^{513. n} ^{514. n} ^{515. n} ^{516. n} ^{517. n} ^{518. n} ^{519. n} ^{520. n} ^{521. n} ^{522. n} ^{523. n} ^{524. n} ^{525. n} ^{526. n} ^{527. n} ^{528. n} ^{529. n} ^{530. n} ^{531. n} ^{532. n} ^{533. n} ^{534. n} ^{535. n} ^{536. n} ^{537. n} ^{538. n} ^{539. n} ^{540. n} ^{541. n} ^{542. n} ^{543. n} ^{544. n} ^{545. n} ^{546. n} ^{547. n} ^{548. n} ^{549. n} ^{550. n} ^{551. n} ^{552. n} ^{553. n} ^{554. n} ^{555. n} ^{556. n} ^{557. n} ^{558. n} ^{559. n} ^{560. n} ^{561. n} ^{562. n} ^{563. n} ^{564. n} ^{565. n} ^{566. n} ^{567. n} ^{568. n} ^{569. n} ^{570. n} ^{571. n} ^{572. n} ^{573. n} ^{574. n} ^{575. n} ^{576. n} ^{577. n} ^{578. n} ^{579. n} ^{580. n} ^{581. n} ^{582. n} ^{583. n} ^{584. n} ^{585. n} ^{586. n} ^{587. n} ^{588. n} ^{589. n} ^{590. n} ^{591. n} ^{592. n} ^{593. n} ^{594. n} ^{595. n} ^{596. n} ^{597. n} ^{598. n} ^{599. n} ^{600. n} ^{601. n} ^{602. n} ^{603. n} ^{604. n} ^{605. n} ^{606. n} ^{607. n} ^{608. n} ^{609. n} ^{610. n} ^{611. n} ^{612. n} ^{613. n} ^{614. n} ^{615. n} ^{616. n} ^{617. n} ^{618. n} ^{619. n} ^{620. n} ^{621. n} ^{622. n} ^{623. n} ^{624. n} ^{625. n} ^{626. n} ^{627. n} ^{628. n} ^{629. n} ^{630. n} ^{631. n} ^{632. n} ^{633. n} ^{634. n} ^{635. n} ^{636. n} ^{637. n} ^{638. n} ^{639. n} ^{640. n} ^{641. n} ^{642. n} ^{643. n} ^{644. n} ^{645. n} ^{646. n} ^{647. n} ^{648. n} ^{649. n} ^{650. n} ^{651. n} ^{652. n} ^{653. n} ^{654. n} ^{655. n} ^{656. n} ^{657. n} ^{658. n} ^{659. n} ^{660. n} ^{661. n} ^{662. n} ^{663. n} ^{664. n} ^{665. n} ^{666. n} ^{667. n} ^{668. n} ^{669. n} ^{670. n} ^{671. n} ^{672. n} ^{673. n} ^{674. n} ^{675. n} ^{676. n} ^{677. n} ^{678. n} ^{679. n} ^{680. n} ^{681. n} ^{682. n} ^{683. n} ^{684. n} ^{685. n} ^{686. n} ^{687. n} ^{688. n} ^{689. n} ^{690. n} ^{691. n} ^{692. n} ^{693. n} ^{694. n} ^{695. n} ^{696. n} ^{697. n} ^{698. n} ^{699. n} ^{700. n} ^{701. n} ^{702. n} ^{703. n} ^{704. n} ^{705. n} ^{706. n} ^{707. n} ^{708. n} ^{709. n} ^{710. n} ^{711. n} ^{712. n} ^{713. n} ^{714. n} ^{715. n} ^{716. n} ^{717. n} ^{718. n} ^{719. n} ^{720. n} ^{721. n} ^{722. n} ^{723. n} ^{724. n} ^{725. n} ^{726. n} ^{727. n} ^{728. n} ^{729. n} ^{730. n} ^{731. n} ^{732. n} ^{733. n} ^{734. n} ^{735. n} ^{736. n} ^{737. n} ^{738. n} ^{739. n} ^{740. n} ^{741. n} ^{742. n} ^{743. n} ^{744. n} ^{745. n} ^{746. n} ^{747. n} ^{748. n} ^{749. n} ^{750. n} ^{751. n} ^{752. n} ^{753. n} ^{754. n} ^{755. n} ^{756. n} ^{757. n} ^{758. n} ^{759. n} ^{760. n} ^{761. n} ^{762. n} ^{763. n} ^{764. n} ^{765. n} ^{766. n} ^{767. n} ^{768. n} ^{769. n} ^{770. n} ^{771. n} ^{772. n} ^{773. n} ^{774. n} ^{775. n} ^{776. n} ^{777. n} ^{778. n} ^{779. n} ^{780. n} ^{781. n} ^{782. n} ^{783. n} ^{784. n} ^{785. n} ^{786. n} ^{787. n} ^{788. n} ^{789. n} ^{790. n} ^{791. n} ^{792. n} ^{793. n} ^{794. n} ^{795. n} ^{796. n} ^{797. n} ^{798. n} ^{799. n} ^{800. n} ^{801. n} ^{802. n} ^{803. n} ^{804. n} ^{805. n} ^{806. n} ^{807. n} ^{808. n} ^{809. n} ^{810. n} ^{811. n} ^{812. n} ^{813. n} ^{814. n} ^{815. n} ^{816. n} ^{817. n} ^{818. n} ^{819. n} ^{820. n} ^{821. n} ^{822. n} ^{823. n} ^{824. n} ^{825. n} ^{826. n} ^{827. n} ^{828. n} ^{829. n} ^{830. n} ^{831. n} ^{832. n} ^{833. n} ^{834. n} ^{835. n} ^{836. n} ^{837. n} ^{838. n} ^{839. n} ^{840. n} ^{841. n} ^{842. n} ^{843. n} ^{844. n} ^{845. n} ^{846. n} ^{847. n} ^{848. n} ^{849. n} ^{850. n} ^{851. n} ^{852. n} ^{853. n} ^{854. n} ^{855. n} ^{856. n} ^{857. n} ^{858. n} ^{859. n} ^{860. n} ^{861. n} ^{862. n} ^{863. n} ^{864. n} ^{865. n} ^{866. n} ^{867. n} ^{868. n} ^{869. n} ^{870. n} ^{871. n} ^{872. n} ^{873. n} ^{874. n} ^{875. n} ^{876. n} ^{877. n} ^{878. n} ^{879. n} ^{880. n} ^{881. n} ^{882. n} ^{883. n} ^{884. n} ^{885. n} ^{886. n} ^{887. n} ^{888. n} ^{889. n} ^{890. n} ^{891. n} ^{892. n} ^{893. n} ^{894. n} ^{895. n} ^{896. n} ^{897. n} ^{898. n} ^{899. n} ^{900. n} ^{901. n} ^{902. n} ^{903. n} ^{904. n} ^{905. n} ^{906. n} ^{907. n} ^{908. n} ^{909. n} ^{910. n} ^{911. n} ^{912. n} ^{913. n} ^{914. n} ^{915. n} ^{916. n} ^{917. n} ^{918. n} ^{919. n} ^{920. n} ^{921. n} ^{922. n} ^{923. n} ^{924. n} ^{925. n} ^{926. n} ^{927. n} ^{928. n} ^{929. n} ^{930. n} ^{931. n} ^{932. n} ^{933. n} ^{934. n} ^{935. n} ^{936. n} ^{937. n} ^{938. n} ^{939. n} ^{940. n} ^{941. n} ^{942. n} ^{943. n} ^{944. n} ^{945. n} ^{946. n} ^{947. n} ^{948. n} ^{949. n} ^{950. n} ^{951. n} ^{952. n} ^{953. n} ^{954. n} ^{955. n} ^{956. n} ^{957. n} ^{958. n} ^{959. n} ^{960. n} ^{961. n} ^{962. n} ^{963. n} ^{964. n} ^{965. n} ^{966. n} ^{967. n} ^{968. n} ^{969. n} ^{970. n} ^{971. n} ^{972. n} ^{973. n} ^{974. n} ^{975. n} ^{976. n} ^{977. n} ^{978. n} ^{979. n} ^{980. n} ^{981. n} ^{982. n} ^{983. n} ^{984. n} ^{985. n} ^{986. n} ^{987. n} ^{988. n} ^{989. n} ^{990. n} ^{991. n} ^{992. n} ^{993. n} ^{994. n} ^{995. n} ^{996. n} ^{997. n} ^{998. n} ^{999. n} ^{1000. n}

hnapada doobiyi lujin luum. ^{1. n} ^{2. n} ^{3. n} ^{4. n} ^{5. n} ^{6. n} ^{7. n} ^{8. n} ^{9. n} ^{10. n} ^{11. n} ^{12. n} ^{13. n} ^{14. n} ^{15. n} ^{16. n} ^{17. n} ^{18. n} ^{19. n} ^{20. n} ^{21. n} ^{22. n} ^{23. n} ^{24. n} ^{25. n} ^{26. n} ^{27. n} ^{28. n} ^{29. n} ^{30. n} ^{31. n} ^{32. n} ^{33. n} ^{34. n} ^{35. n} ^{36. n} ^{37. n} ^{38. n} ^{39. n} ^{40. n} ^{41. n} ^{42. n} ^{43. n} ^{44. n} ^{45. n} ^{46. n} ^{47. n} ^{48. n} ^{49. n} ^{50. n} ^{51. n} ^{52. n} ^{53. n} ^{54. n} ^{55. n} ^{56. n} ^{57. n} ^{58. n} ^{59. n} ^{60. n} ^{61. n} ^{62. n} ^{63. n} ^{64. n} ^{65. n} ^{66. n} ^{67. n} ^{68. n} ^{69. n} ^{70. n} ^{71. n} ^{72. n} ^{73. n} ^{74. n} ^{75. n} ^{76. n} ^{77. n} ^{78. n} ^{79. n} ^{80. n} ^{81. n} ^{82. n} ^{83. n} ^{84. n} ^{85. n} ^{86. n} ^{87. n} ^{88. n} ^{89. n} ^{90. n} ^{91. n} ^{92. n} ^{93. n} ^{94. n} ^{95. n} ^{96. n} ^{97. n} ^{98. n} ^{99. n} ^{100. n} ^{101. n} ^{102. n} ^{103. n} ^{104. n} ^{105. n} ^{106. n} ^{107. n} ^{108. n} ^{109. n} ^{110. n} ^{111. n} ^{112. n} ^{113. n} ^{114. n} ^{115. n} ^{116. n} ^{117. n} ^{118. n} ^{119. n} ^{120. n} ^{121. n} ^{122. n} ^{123. n} ^{124. n} ¹²



long-obsolete technical terms, which the "elucidations" of commentators frequently rendered even more baffling. Translated into English in the nineteenth century, many renderings are acknowledged to be merely tentative. From time to time fresh efforts are made by individuals interested in certain sections, yet still none will swear he has it absolutely right in the case of a given word or notion. Nevertheless much may be gleaned, and many old practices take at least partial shape through the haze. Scattered among its various tracts are sections which include enactments to govern the practices of physicians and the care of the sick and infirm. In accordance with the ancient laws the physician who wished to attain to highest rank had to undergo, after many years of study, a severe form of examination at the hands of an appointed judge, who considered not only the candidate's professional qualifications but his general fitness as to character—whether he was upright, just, free from immorality, whether he had shed blood, or abused his fellows. The report being favourable he underwent a ceremony of "ordination by the king of territories" and became an *ollav* physician. An *ollav* physician instructed pupils, and these accompanied him when he rode forth to visit patients. While he remained in the house of his patient he was entitled to daily food for himself and his pupils in addition to his fees, which varied according to the rank of the patient. The legally qualified physician, of whatever degree, was given full recognition as against the "unlawful physician," who, however, was allowed to practise; indeed, he must have been very necessary during the frequent tribal wars. But, said the law, "if he has removed a joint or a sinew without taking guarantee, without warning of bad curing," that is, without first obtaining an indemnity against liability to damages, by giving notice that he was not a "regular" physician, he is liable to a penalty; he is exempt from both if he has protected himself according to the law. Should he treat an existing wound which subsequently becomes worse he is liable "if an impartial physician declares that it could have been cured more lawfully," but he is exempt if the physician pronounces in his favour. The law took cognisance of want of skill, carelessness, and negligence on the part of any physician: "If the wound becomes greater than at first, if it breaks out afresh, if it is the consequence of bad curing, the penalty is always to be paid by the physician just as if he had inflicted it with his own hand." A "testing time" was allowed in which to discover whether or not a successful cure had been accomplished, "three years for testing of the head, one for the hand; for the leg a short period along with a year, and nine months for the body generally." A doctor could be distrained for debt, and it would seem that it was the intention to put him out of practice, wholly or in part, until he had paid, for the enactment reads:—

"As to distraint of a physician let his horsewhip or his probe [wand?] be taken. If he has not the proper number of such things let a thread be tied about the finger next to his little finger. If he does not cede justice it is the same as absconding on his part, and let there be notice served for every distress taken from him."

The Care of the Sick

The Brehon Laws show evidence of enlightened thought and great humanity in the care of the sick. A system of "sick maintenance" existed by which the person inflicting the wound or other injury was made responsible for providing all that was necessary for the treatment and care of the patient until he was restored to health, or died. In the minute rules laid down for the levying of distraint, anyone who is liable is granted a stay of execution of one day should he be responsible for ministering to the needs of a sick person. "For the sick

maintenance of every person, i.e., for the godly relief in sickness which everyone is entitled to, namely for providing the substitute (i.e., finding a man to do his work while he is sick) and a man to attend him, for providing him a physician as he is bound to do, for providing his food—the distress has a stay of one day." The law required a certain standard of provision for the sick in the matter of bed, housing, nursing, peace and quiet, which it sets forth in a picturesque explanatory passage:—

"For providing his proper bed, i.e., plaids and bolsters, i.e., a suitable bed. For providing him a proper house, i.e., that it be not a dirty, snail-besmeared house, or that it be not one of the three inferior houses, i.e., that there be four doors out of it that the sick man may be seen from every side; and water must run across the middle of it. For guarding against the things prohibited by the physician, i.e., that the sick man may not be injured, i.e., by women or dogs, i.e., that fools or female scolds be not let into the house to him, i.e., or that he may not be injured by forbidden food."

Such were to be the conditions provided in the "territorial house" or hospital, and in the house provided by the physician for nursing patients near his house. Under the enactment a vivid description is given of the scene which should follow a wounding. First the person who has shed the blood must give a pledge to the amount of a cow. Then, "the sick person is conveyed . . . into a high sanctuary [i.e., a hospital] quickly from the rapid rush of a hostile crowd; afterwards a new pledge is given not to put him into a bed forbidden by the doctor and to provide a doctor until his present health is decided, and his after health. His bed carrying party must protect him to the territory house." It is laid down that "cream upon new milk is to be provided for him on the third, fifth, ninth and tenth days, and on Sundays." Should the one who has inflicted the injury fail to carry out his pledge responsibility fell upon his securities, and payment might be obtained by force if necessary, even should it be through the pleading of a "tongueless person," i.e., not a professional pleader. Sometimes the injured man was cared for in the house of the aggressor, but always strictly in accordance with the requirements of the law. Wives of mercenary soldiers were given sick maintenance in the right of their sons or husbands.

Very tender was the law, too, towards the needs of the pregnant woman. The husband was bound to provide her with three "sufficient meals" a day, but in addition indulgence was imperative in connection with the "fancy bit," and there were penalties for neglecting this longing "for the longed-for morsel, i.e., the longing of a pregnant woman, i.e., what she longs for, not being given her, i.e., by her own husband, and if it was through penuriousness or niggardliness the food was withheld, or if it was in wantonness." The woman's "fancy bit," even were it stolen by her or on her behalf, was free from fine. Again, "the longing woman is exempt in eating what subdues her yearning, i.e., three bits of another's food, provided she eats not much more than this, and should she eat it a fine for stealing the extra portion is due of her." Food from a "solemn feast," however, she might not steal. On the other hand, should a woman suppress her yearning for food for an unlawful purpose, the law decreed: "If the woman did not ask for it for the purpose of killing the child in her womb, body fine and honour-price to be paid to the family of the father, to the family of the mother, a 'coibche' wedding present and honour-price to the husband." An equivalent penalty was imposed upon the husband who should refuse food in the same intention.

Careful and humane provision was also made for the protection of the feeble-minded—the "idiot" and the "fool" as they are styled. And first "when is it discriminated by their age whether he is a fool or a sensible person?" the judges



asked themselves. "At the age of seven years exactly," it was decided. "And when a fool or a person of half-sense?" "That is at the age of fourteen years exactly." The feeble-minded person was exempt from all responsibility for his misdemeanours and crimes: "the man who incites a fool is he who pays for his crime, i.e., the fool is exempt; if blood be shed by a fool he is not guilty, whoever ordered him to do it, it is he that pays." Ribald mockery of fools by the uncouth was recognised as a chief cause of crime and delinquency, and was strongly deprecated and punished. In the most degraded aspect of inciting "by mockery" the law made the inciter shoulder all responsibility for resulting offspring. The public, however, were protected in case the law were found to have laid too heavy a hand upon them, by the proviso that should the mentally deficient person show evidence, during a period of uncertain mental balance, of being "half sensible," compensation should be paid in due proportion to those who had already paid penalties for his delinquencies.

Medical Magic

THE Brehon Laws contain many references to medical magic. In its malignant form this is there declared to be the cause of insanity, a madman being constantly defined as one "upon whom the magic wisp has been thrown." The magic or "fluttering" wisp was a little wisp of straw or grass into which the Druid magician had uttered malevolent incantations and then flung it into the face of the victim, who became raving mad. Sickness caused by "marrow taken out of the bones by a sorceress" by preternatural means, is recognised. "Fairy hills" or mounds are accepted as the dwelling places



"FAIRY HILL" AT HIGHWOOD, CO. SLIGO

of spirits who issue forth to spread disease and mischief of every kind upon man—and upon cattle the "fairy plague" which the Laws explain as broken or diseased kidney. Occasionally, however, the fairies were friendly to man. A very interesting reference concerns certain benevolent incantations which render prophetic and give power to cure: it is laid down that a Brehon (i.e., a judge) who passes false judgment loses his power to attain this hypnotic healing condition. To want of integrity on the part of the judges the law definitely ascribes, too, no less an evil than the outbreak of plague, which it defines as "a period at which the world loses its goodness." In the page reproduced from the Brehon Laws this subject is included. "Three plagues that are difficult that happen in the world: the coming of famine, the slaughter of a tribe, the coming of a pestilence." For this the law prescribes the remedies, "There are three remedies which cure them: Brehons to be on their guard that they pass not false judgment; alms to be given by all of every fruit; not to testify falsehood or bear false witness." The commentary explains that these measures "are antidotes against them, that these things which we have mentioned may not be permanent." Among other pathological conditions arising out of psychological causes as a result of the same sin is the appearance of blotches upon the

face of the unjust judge. Interesting allusions are made in the laws to the ancient Irish means of determining family relationship in disputed cases. These show that they carried out experimental tests, not in the blood stream, but as to the character of the accused, establishing his truthfulness or untruthfulness by the magico-medical ordeal of the "Cauldron of Truth." If his hand was scalded by the boiling water into which it was plunged, he was guilty; "but if he had no guilt, no harm was done to him" by it.

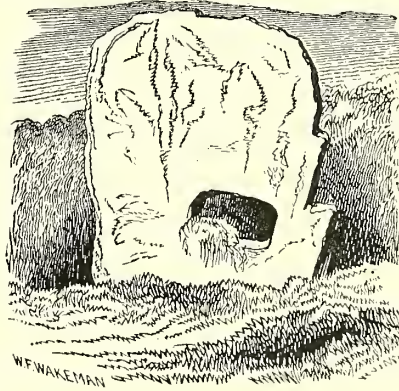
Popular Customs

MANY native Irish popular medical customs can be traced through all periods, some of them remaining to this day.



HOT AIR CURATIVE BATH IN SLIGO

Although in some cases finding no mention in the earliest literature, they are yet believed to have existed in Pagan times. The Tigh 'n alluis, i.e., "sweating-house," a primitive hot air and vapour bath, is one of these. It is still well-known in Northern Ireland. These baths were much frequented by those suffering from rheumatic affections, and cure is said to have been obtained after several baths at intervals of a few days. They are built near a pool and away from habitations. Entirely of stone they measure from five to seven feet long inside, and have a small opening for access. A turf fire was burned inside until furnace heat was attained, then the embers were swept out and vapour was produced by throwing water upon the hot stones. The sick person, wrapped in a blanket, crept in and sat upon a turf bench, then the opening was closed up. He remained until he was in a state of profuse perspiration—an hour or so—when he crept out and plunged into the cold pool. He was then well rubbed. Medicated "fairy baths" were given until recent times to children suffering from



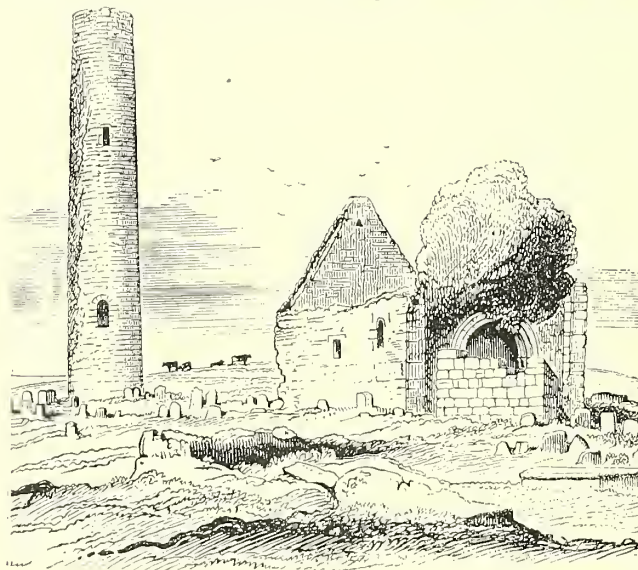
HOLED ("HEALING") STONE



wasting diseases believed to have been inflicted by the fairies. The antidote was provided by the lusmore or fairy thimble (*Digitalis purpurea*), which they steeped in the bath. The "straining stone," an example of which may be seen in a churchyard in Sligo, is an age-long popular remedy for sprains and vague aches and pains. Certain egg-shaped stones believed to possess magic properties lie upon the flat "straining stone" while a "straining string" is wound round a rectangular stone block. The patient turns each stone in turn from left to right between the thumb and second finger of his left hand, repeating prayers, the Christian equivalent of pagan spells, at the same time making knots in the string to bind the demon of disease. The patient takes away the thread, carefully replacing it by another lest the rite be brought to nought. Holed stones, popularly called "healing stones," have been much resorted to from prehistoric times for prophylactic and healing purposes. The patient crept through the hole, reciting charms addressed to suit the pagan or Christian times, and expected to be cured of rheumatism, spinal complaints, and pains in the back. Children were passed through for the cure of rickets, while expectant mothers passed their clothes through the hole to secure happy delivery.

Christianity Introduced

THE introduction of Christianity into Ireland in the fifth century led, in the course of time, to important developments in Irish medical history. During the latter half of the sixth century monasteries were built over the country. In them and at the schools and colleges attached to them the



INISCALTRA

Greek and Latin languages were studied by hundreds of students, lay as well as ecclesiastical—nearly all professional physicians were lay pupils. Very famous among the schools

were those of Monasterboice, Clonmacnoise and Iniscaltra. Ireland came to be called "the Island of Saints and Scholars" (*Insula sanctorum et doctorum*). The Irish physicians now had

Plumbum .i. m. l. u. a. d. e. p. l. a. t. a. r. e
p. a. t. a. b. i. f. e. b. r. u. a. l. e. p. u. i. p. e. a. n. p. l. a. t. a. t. a.
l. u. a. t. i. g. i. d. o. p. e. m. d. e. p. a. c. h. i. n. a. b. a. l. t.
a. m. b. i. l. a. n. t. i. s. i. p. o. n. t. i. a. t. o. l. a. t. i. s. d. i. u. r. g.
i. t. n. a. c. h. i. g. a. c. h. i. b. d. a. n. t. i. m. d. a. c. o. p. a. l. l. u. a. t. i. g. i.
d. o. c. h. i. p. e. n. i. p. l. a. t. a. t. a. n. a. m. b. i. a. m. p. u. a. d.
p. o. l. t. d. e. c. h. i. a. b. e. l. l. e. d. i. a. m. u. i. g. i. s. i. n. m. o. p. a. r. i.
d. e. b. i. p. a. t. a. p. l. a. t. a. l. u. a. t. i. g. i. d. o. c. h. i. l. e. t. a. m. u. i. g. i.
d. o. c. h. i. n. e. i. l. o. t. i. g. i. d. o. i. t. o. t. u. n. e. n. o. o. u. i. g. i.
l. e. p. u. i. l. l. i. s. i. m. o. d. p. u. i. p. e. i. m. p. u. i. c. a.
i. t. a. b. i. p. u. i. c. o. i. s. d. e. c. h. i. o. p. m. a. n. t. i. g. i. t. a.
c. l. a. u. i. g. i. m. a. d. p. i. t. i. m. a. t. o. r. i. d. u. i. l. l. i. n. e. i. g. i.
d. o. b. n. i. c. o. m. i. n. u. g. a. c. h. i. p. e. c. h. a. d. i. g. o. n. t. i. g. i.
p. l. u. r. p. o. l. a. n. a. c. h. i. p. e. n. i. g. i. s. i. n. a. m. u. i. g. i.
d. u. i. l. l. i. m. i. n. i. o. d. o. b. b. a. m. u. i. g. i. d. o. c. h. i. s. i. n. t. i. g. i.
i. s. p. u. i. p. e. p. a. c. h. i. p. o. n. t. i. a. t. i. g. i. d. o. c. h. i. s. i. n. t. i. g. i.
o. r. o. n. l. o. t. i. g. i. d. o. p. a. c. h. i. d. o. b. n. i. c. a. m. u. i. g. i. s. i. n. t. i. g. i.
d. o. b. n. i. c. h. i. t. a. p. u. i. n. d. i. a. n. t. o. p. e. i. p. o. n. t. i. g. i. m.
h. i. t. a. d. o. b. n. i. c. h. i. t. a. p. u. i. n. d. i. a. n. t. o. p. e. i. p. o. n. t. i. g. i. m.
h. i. t. o. s. a. n. a. d. a. m. u. i. g. i. s. i. n. t. i. g. i. d. o. c. h. i. s. i. n. t. i. g. i.

PART OF SIXTEENTH-CENTURY IRISH MS. ON MATERIA MEDICA (British Museum)

Rimmosa .i. m. l. u. a. d. e. p. l. a. t. a. r. e
p. a. t. a. b. i. f. e. b. r. u. a. l. e. p. u. i. p. e. a. n. p. l. a. t. a. t. a.
l. u. a. t. i. g. i. d. o. p. e. m. d. e. p. a. c. h. i. n. a. b. a. l. t.
a. m. b. i. l. a. n. t. i. s. i. p. o. n. t. i. a. t. o. l. a. t. i. s. d. i. u. r. g.
i. t. n. a. c. h. i. g. a. c. h. i. b. d. a. n. t. i. m. d. a. c. o. p. a. l. l. u. a. t. i. g. i.
d. o. c. h. i. p. e. n. i. p. l. a. t. a. t. a. n. a. m. b. i. a. m. p. u. a. d.
p. o. l. t. d. e. c. h. i. a. b. e. l. l. e. d. i. a. m. u. i. g. i. s. i. n. m. o. p. a. r. i.
d. e. b. i. p. a. t. a. p. l. a. t. a. l. u. a. t. i. g. i. d. o. c. h. i. l. e. t. a. m. u. i. g. i.
d. o. c. h. i. n. e. i. l. o. t. i. g. i. d. o. i. t. o. t. u. n. e. n. o. o. u. i. g. i.
l. e. p. u. i. l. l. i. s. i. m. o. d. p. u. i. p. e. i. m. p. u. i. c. a.
i. t. a. b. i. p. u. i. c. o. i. s. d. e. c. h. i. o. p. m. a. n. t. i. g. i. t. a.
c. l. a. u. i. g. i. m. a. d. p. i. t. i. m. a. t. o. r. i. d. u. i. l. l. i. n. e. i. g. i.
d. o. b. n. i. c. o. m. i. n. u. g. a. c. h. i. p. e. c. h. a. d. i. g. o. n. t. i. g. i.
p. l. u. r. p. o. l. a. n. a. c. h. i. p. e. n. i. g. i. s. i. n. a. m. u. i. g. i.
d. u. i. l. l. i. m. i. n. i. o. d. o. b. b. a. m. u. i. g. i. d. o. c. h. i. s. i. n. t. i. g. i.
i. s. p. u. i. p. e. p. a. c. h. i. p. o. n. t. i. a. t. i. g. i. d. o. c. h. i. s. i. n. t. i. g. i.
o. r. o. n. l. o. t. i. g. i. d. o. p. a. c. h. i. d. o. b. n. i. c. a. m. u. i. g. i. s. i. n. t. i. g. i.
d. o. b. n. i. c. h. i. t. a. p. u. i. n. d. i. a. n. t. o. p. e. i. p. o. n. t. i. g. i. m.
h. i. t. a. d. o. b. n. i. c. h. i. t. a. p. u. i. n. d. i. a. n. t. o. p. e. i. p. o. n. t. i. g. i. m.
h. i. t. o. s. a. n. a. d. a. m. u. i. g. i. s. i. n. t. i. g. i. d. o. c. h. i. s. i. n. t. i. g. i.

access to the classical medical writings. Many of these they translated into Irish, so that the medicine of Hippocrates, Aristotle, Dioscorides, Avicenna, Galen, Rhazes and the others became available to the less learned leech also. Some of the physicians added to their copies of medical books, whether Latin or Irish, commentaries derived from their own personal experience; they added the native names of the diseases most common in Ireland; in the case of manuscripts containing materia medica they wrote the names of native medicinal plants. Many of these medical manuscripts were compiled from several sources. "I have collected practical rules from several works," writes one physician in his preface, "for the benefit of the Irish people, for the instruction of my pupils, and for the love of my friends and kindred. I have translated them from Latin into Gaelic . . . These are things gentle, sweet and profitable, and of little evil, things which have been often tested by us and by our instructors. I pray God to bless those doctors who will use this book . . . I implore every doctor, that before he begins his treatment he remember God the Father of Health, to the end that his work may be finished prosperously. Moreover let him not be in mortal sin, and let him implore the patient to be also free from grievous sin. Let him offer up a secret prayer for the sick person . . ." At the end of a fifteenth-century translation of a Latin medical work the very interesting find has recently been made of two legal tracts, copies from the Brehon Laws, as in use at the time, of the portions relating to sick-maintenance; it appears to have belonged to one of the medical schools. Irish medical manuscripts were handed down from father to son in certain families in which the profession of medicine became hereditary. These came to be known as "The Book of the O'Hickeys," "The Book of the O'Lees," to name only two. Thus Irish medical practice entered the stream of mediæval European medicine.

An account exists of a remarkably successful trephining operation carried out at the famous school of Tomregan, in Cavan. The subject was an actual historic person, the young Irish chieftain Cennfaelad, whose skull had been fractured in battle. He was treated for a year, and a portion of his skull



and brain were removed. His intellect cleared, he regained his memory and became a great scholar whose works are still in existence. He founded the famous school of Derry-loran. The writer of the account explains the success of the operation by stating that Cennfaelad's "brain of forgetfulness was removed." It would seem that Ireland now—and not only in legendary times—produced successful and distinguished physicians whose fame reached to other lands. Perhaps the first historical name is that recorded in the annals under 860 A.D.: "Maelodar O'Tinnri the best physician in Ireland," who died that year. From that time a succession of physicians who became eminent left the schools. A peculiarly valuable tribute comes, early in the sixteen-hundreds, from that great man and distinguished physician of Brussels, Johann Baptist van Helmont, who declares that the Irish physician was appointed "not on account of the amount of learning he brings away in his head from colleges, but because he can cure disorders." Irish professors, it should be emphasised, were held in such esteem that many were given appointments in schools and colleges of Great Britain, Germany, France and Italy.

Healing Based on Religious Belief

SIDE by side with this orthodox medicine grew up a system of healing based upon religious faith, and this played a very vital part in Irish mediæval life. Its foundations were rooted in the belief that disease was caused by sin, could be prevented only by abstaining from sin, and cured by repentance and prayer for forgiveness together with penitential practices and good works. The disease was occasioned through possession of the patient's body by a disease-bringing demon. In St. Patrick's time Ireland was believed to be

"the special home of demons" and of evil spirits, mischievous fairies and many kinds of hostile supernatural beings, all set to work by the wicked spells of Druids, sorcerers, witches and magicians of every category. Among the prophylactic means employed against them were specific hymns composed by the saints or in their honour. These, and other shielding objects, such as medical amulets, were called loricæ. Chief among them was "St. Patrick's Hymn," which he and his companions chanted on their way to Tara in 433 A.D.

Several lines of it were aimed against "incantations of false prophets, against black laws of heathenry, against false laws of heretics, against craft of idolatry, against spells of women and smiths and Druids, against every knowledge that defiles men's souls." St. Patrick set himself to undermine the power of the Druids, and with a great measure of success. If the demon was already in

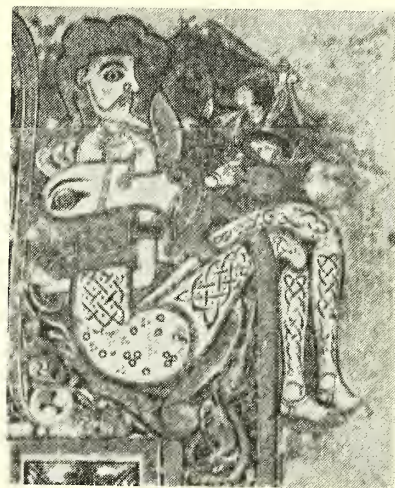
possession he was "conjured out" of the sick man by the rite of exorcism performed in the church. Prayer, anointing with holy oil, and the laying on of hands formed part of the

FRI CECH NERT N-AMNDS N-ETROCAR PRISTI
DOM CHURP OCUS DOMIN ANIMAIN, PRI TINCHETLA
SAIBPÁTHE, PRI DUBRECTU GENTLIUCHTA, PRI SAIB-
RECHTU HERETECDA, PRI HIMCELLAÉT N-IOUACH
TA, PRI BRICHTA BAN OCUS GOBANO OCUS DRUAD,

*LINES FROM ST. PATRICK'S INVOCATION AGAINST
SUPERNATURAL AGENCIES. THE LAST LINE INCLUDES
AN INVOCATION AGAINST WOMEN, SMITHS AND DRUIDS.*

healing ceremony in which, at the raising of the crucifix, the demon was bidden to leave the patient's body. Monks and nuns ministering to the sick frequently manifested healing powers which were held to be supernatural. St. Brigit, who became the chief healing saint of Ireland, is stated to have worked definitely miraculous cures, though it is claimed that she did this with reluctance and only in cases of exceptional suffering, preferring to treat patients by remedial drinks, poultices, bathings, etc. After their death, all saints were believed to possess general power to heal, though the "medical" saints were chiefly supplicated. The teaching was that cure came not directly from themselves, but through their intercession on behalf of the sick person. Healing virtue, too, was believed to pervade the saint's shrine, or a reliquary containing one of his bones, or a portion of one, a finger, a nail, a hair, or even only some object once possessed by him, and to be transmitted to the invalid who should touch it. Sick and infirm pilgrims flocking in multitudes on the various saints' days to the holy places where these were to be found were a striking feature in Ireland, as elsewhere.

Healing wells were another constantly employed means of religious therapy. The Pagan Celtic Irish deified wells and springs and worshipped them. St. Columba and other leaders deprecated this "heathen" custom, but with true wisdom consecrated them to Christian uses. Blessing them, they imparted to their waters power to heal diseases. Other wells became curative because they were those beside which holy men and women had taken up their abode. To certain wells were ascribed virtue to heal all infirmities, while others were resorted to for the cure of specific diseases. That of St. Athracht, here reproduced, was visited by those suffering from epilepsy and general nervous disorders; supplication was made before its altar and the patient drank of and bathed in its waters. There are computed to be no fewer than 3,000 holy wells in Ireland, and many are still visited by the sick,



MAN IN GRASP OF DEMON
(Seventh-century MS.)

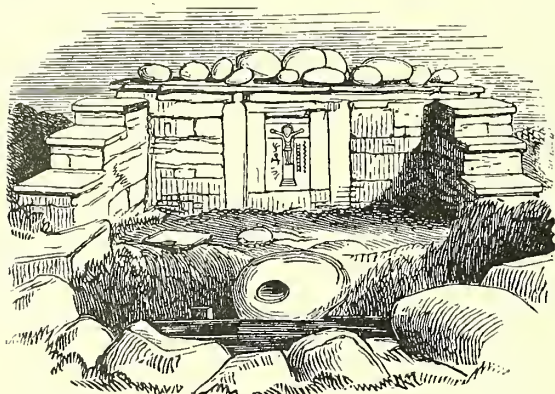


THE DEVIL IN A SEVENTH-CENTURY MS.

are here reproduced in the Irish text. It was aimed against "incantations of false prophets, against black laws of heathenry, against false laws of heretics, against craft of idolatry, against spells of women and smiths and Druids, against every knowledge that defiles men's souls." St. Patrick set himself to undermine the power of the Druids, and with a great measure of success. If the demon was already in



By these and other religio-medical means countless thousands who needed no other treatment than that which operated through the mind received the health and healing they sought, throughout the Middle Ages and later. The professional



THE HEALING WELL OF ST. ATHRACT

physicians and surgeons, meanwhile, strove ever to increase their knowledge and heighten their skill to cure or relieve those for whom other aid was indispensable.

Food in Illness

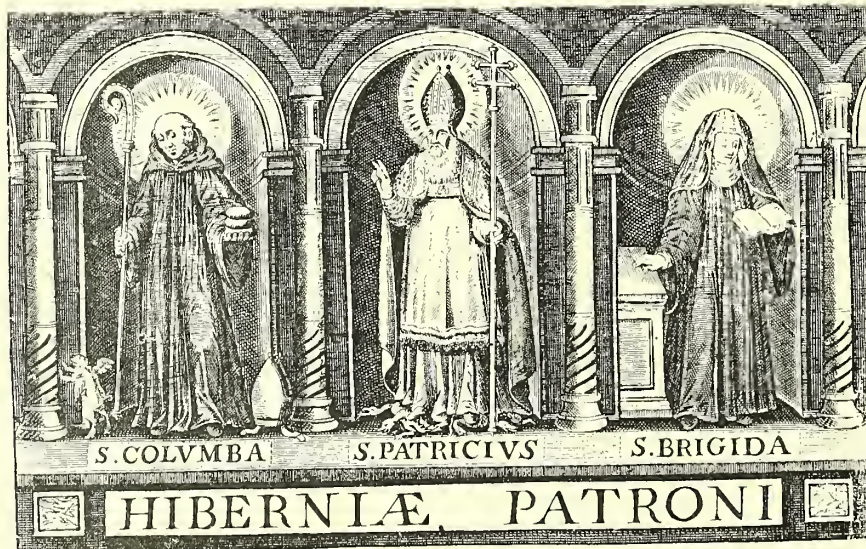
Food for the sick was a matter of special concern to the ancient Irish lawgivers, for, as they prefaced one of their enactments, "Most difficult in nursing according to Irish law are the fare and condiment and sick craving of invalids." Each man on sick-maintenance was entitled to "a properly

of the sea impels one to drink. Does not horse flesh stir up sickness in the stomach of wounded heroes? Stomachs endure not a storm save people who can retain it(?) It is not right to give horse flesh to any invalid. Honey disturbs the stomach in which there is looseness of the bowels." It is explained that "if the leech has ordered that these prohibited foods are not to be given, a fine is due from the person who gave them and the leech is free from liability. If he has not so ordered, he has to pay according as he is a skilled or unskilled physician, and the person who gave them is free from liability if he acts in ignorance." The herb garden was sedulously cultivated for medicinal plants, "for," says the law, "it is for this purpose that gardens have been made, viz., for the care of the sick, and no person on sick-maintenance is entitled in Irish law to any condiment except garden herbs." A note adds "except on a festival or on a Sunday," though people of high rank were entitled to other condiments. Among condiments frequently advised were "honey, fresh garlic, and an unlimited amount of celery," always saving prohibition on the part of the physician in certain cases. It is pointed out that celery "prevents sickness, and does not stir it up, it prevents thirst and does not infect wounds." Another sick diet enactment reads: "Not everyone on sick-maintenance is entitled in Irish law to ale, save by a leech's direction. There are three condiments which serve for it in Irish law: garlic, celery, and sweet fruit. Each of them is a substitute for the other on account of the great service given by garden herbs in nursing."

The Six Stages of Life

The ancient Irish divided human life into six stages which they called *Colomna áis*, i.e., "Columns of Age." These stages were (1) *náidendacht*, infancy; (2) *macdacht*, boyhood;

(3) *gillacht*, youth or puberty; (4) *hóclachus*, adolescence or manhood; (5) *sendacht*, old age; (2) *díblidecht* or *dimligdetu*, decrepitude. They also recognise six elements in man to account for various dispositions and temperaments: "It is worth knowing what Adam was made of, namely of eight parts:—the first part of earth; the second part of sea; the third part of sun; the fourth part of clouds; the fifth part of wind; . . . the seventh part of the Holy Ghost; the eighth part of the light of the world." The earth part, they held, was man's body, and if this predominates he will be slothful; the part of the sea is the blood and, in excess, this makes a man changeful; the part of the sun is his face and countenance, which will be lively and cheerful if the solar part is prominent. The part of the wind is the breath, and if that part prevails he will be of a strong character. The part of the Holy Ghost is the soul, the predominance of which will make



TRIPTYCH WITH THREE SAINTS MENTIONED IN THIS ARTICLE

made loaf each day with its due relish [i.e., of butter or of milk]." Meat, cheese, "flitches," curds, are mentioned, together with whatever the doctor should order: his prohibitions, too, were emphasised. Among many diet clauses a typical one reads: "There are three condiments which the rule of nursing in Irish law excludes: every salt fare which is prepared with sea-produce [i.e., which is cured with salt], the flesh of the whale and of a horse, and honey. For the produce

him lively, of good countenance, full of grace and of the divine Scripture. The part that is made of the light of the world is piety and if this prevails he will be a loving, sensible man.

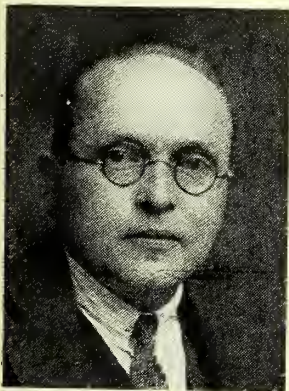
The six stages of human life and the eight parts of which Adam was made remind one of the speech on the seven ages of man put into the mouth of Jacques in "As You Like It" by Shakespeare.



The Botanic Gardens Park, Belfast

By Professor James Small, D.Sc., Ph.C.

VISITORS to these gardens who are accustomed to Kew or the Botanic Gardens of Edinburgh or Glasgow may be disappointed by the obvious popularity of the place as a general playground for young and old. The Botanic Gardens Park has, however, many points of interest for those who are interested in tropical plants, ferns, hothouse horticulture or rock-gardening. It has a history of over a century. Originally it was formed by the Belfast Botanical Society in 1827, and Thomas Drummond was its first curator. He left Belfast about 1829, and the Gardens were continued under various curators. James MacAdam, in particular, was active in procuring seeds and plant specimens from various parts of the world. The horticultural aspect was emphasised at an early date; from at least 1840 to 1894 the gardens were owned by The Royal Belfast Botanical and Horticultural Co., Ltd. The president who procured the grant of "Royal" in 1840 was the Marquis of Donegall. In the early days there was a connection with Glasgow through Hooker, to whom Charles Telfair of Port Louis, Mauritius, sent much material. Telfair was a corresponding member of a Belfast Natural History Society and sent his parcels of seeds, etc., to Belfast with an arrangement for a part of each to be sent on to Hooker.



Professor J. SMALL, D.Sc., Ph.C.

gardens at an annual loss, the average annual loss for 1888-92 being about £100.

A City of Open Spaces

The purchase by the Corporation was part of a consistent policy, which is still being maintained, of providing open spaces for the public in all parts of the city. The Ormeau, Falls, Alexandra, Woodvale, Dunville and Victoria Parks were all acquired by purchase or gift before the Botanic Gardens Park; while the Glenbank and Bellevue are more recent developments which are supplemented by about a dozen children's play centres. In addition the Belfast Corporation was the first municipal authority in the Kingdom to obtain through Parliament the power to close certain streets to traffic so that they could be used with safety as playgrounds for children. A large extension of the Botanic Gardens Park is planned for the same purpose.

The main entrance is at the corner of University Road and Stranmillis Road, just past the University. Here there is a lodge which was new in 1879; the clock is worth a passing glance for it dates from that year, when it was placed in the small tower by a group of about sixty subscribers. Just within the gates is a statue (1912) which commemorates Lord Kelvin's connection with Belfast. His father was at one time mathematical master at the Royal Belfast Academical Institution. The birthplace of Kelvin is now appropriately enough the site

of the Kelvin Cinema, where he would probably be more at home than among the ginkgos and eucalypts of the Botanic Gardens. The Thomson family were farmers near Ballynahinch for generations before Kelvin's grandfather became a linen merchant in Belfast; but the statue to Kelvin on its present site



CORDYLINE, WITH BIRD TABLE IN FOREGROUND

may be said to be even more in memory of his younger brother, James, who was Professor of Civil Engineering in Queen's College, Belfast, 1857 to 1873, and who read a paper in 1852 before the Belfast Social Inquiry Society on "Public Parks in connection with Large Towns, with a suggestion for the formation of a Park in Belfast." This paper is said to have led directly to the purchase of the Ormeau Park in 1869, and indirectly to the development of public parks in other large cities. There is still a great power of initiation in Northern Ireland, which claims the first electric car in the Kingdom (still in operation at Portrush), the first pneumatic-tyred bicycle, the first two-minutes silence on Armistice Day, and the first pharmaceutical "annual licence," and which is even now the testing ground for many political and other experiments.



A CORNER OF THE ROCK GARDEN

All this is very interesting but we are still at the main entrance to the Gardens! On the left of the Kelvin statue a wide path leads to the horticultural and rock-garden section; the big dome of the glasshouse covers a wealth of bloom at all seasons, begonias, *Schizanthus*, cinerarias, carnations, orchids, lilies,



bamboos and a host of decorative colours for functions at the City Hall and elsewhere. Amongst these may be found many interesting plants such as cotton, coffee, tea, orange and seedling eucalyptus of various species.

Beyond the big glass-house on the left is the beginning of an aviary with some curious birds, and to the right lies the rock-garden. This is well laid out, with numerous public paths, big picturesque chalk boulders, dry mounds and wet corners, little marshy places where local birds are encouraged by means of bird-tables and sedgy nesting places. Here may be seen quite a number of old and new friends, including the cordyline palm which gaily survives the mild Belfast winter and blooms freely in many private gardens; the so-called New Zealand cabbage with its huge spiny leaves and thick columns of queer flowers which really came originally from Chile (*Gunnera chilensis*); the graceful candelabra of *Primula pulverulenta* with its various reds and purples; *Meconopsis baileyi* from Thibet; *Erica mediterranea* and other heaths; various saxifrages, etc.

The Municipal Art Gallery and Museum

Taking the path to the right of the Kelvin statue we see the Municipal Art Gallery and Museum, which on occasions has on exhibition some really modern work such as that of "Unit One" with their *Dux and Comes* or *Three Circles* 1934. Then we come to the Tropical Fernery in which aroids, such as *Monstera deliciosa* with its curious large perforated leaves, are at home in the company of a rather good selection of tropical

The very tall and graceful eucalypts *E.cordata* and *E.globulus* are a definite feature of the grounds around the Tropical Fernery, and a Lombardy-poplar-like specimen of *Ginkgo biloba*, the maidenhair tree, may be found to the left of the exit from the Fernery. Towards the Museum building there is a small house, the Curator's residence of old days, and near this are the old Natural Order beds. These beds have now rather a mixed population, but in and around them are many interesting plants, including a well grown bush of *Colletia* with its big, dark green, flatly triangular thorns. A feature of the Gardens is that practically all the trees are labelled with metal labels so that they can be identified by visitors at any season of the year.

The staff deserves special mention; the tradition was established by the excellent work of Charles McKimm, who decorated the entrance and exit for the present King and Queen in 1897; his work was carried on by James Davies, and the McKimm tradition is being more than upheld by the present Superintendent of Parks, Mr. George Horscroft, who is ably assisted at the Bctanic Gardens by the energetic Mr. Archibald Graham.



EUCALYPTUS GLOBULUS

and subtropical ferns such as *Marattia*, *Angiopteris*, *Lygodium*, *Davallia* spp., *Nephrolepis* spp., etc. Here there are several rather lanky banana plants which bloom and produce quite a number of "hands" of small green fruits; also *Ficus religiosa* the Bo-tree of India and the Biblical *Ficus sycomorus* or mulberry-fig which is the true sycamore. In the lily-pond here the big leaves of *Victoria regia* usually succeed, and Indian rice is grown in large pots placed in the water.



THE KELVIN STATUE

Finally the tale of the old Exhibition Hall may be told in brief. This was a large shed built by Messrs. Harland and Wolff for the official "under cover" construction of an Admiralty gunboat; re-erected by the Gardens Company, re-floored for dancing and used for many gay functions. Even after 1894 "for many years almost all the principal public and private dancing entertainments were given in the Exhibition Hall," as well as very occasional flower shows. In 1914 it became the first section of the Ulster Volunteer Force Hospital, which later spread as wooden buildings around the adjacent University. After the war the Hall was used as a police barracks by the R.I.C. and R.U.C., but finally it went as builders' scrap, leaving its progeny in the form of the wooden extensions of the U.V.F.H., which are now used as University classrooms, laboratories, and examination hall, with the bed-numbers still to be found in the Botany Department greenhouse.



Peloids, Pelology, Pelotherapy

By S. Judd Lewis, D.Sc., Ph.D., F.I.C., Ph.C.

THE three words appearing at the head of this article were devised as a matter of necessity to comprehend a most heterogeneous set of substances or media used at various spas on the Continent and at a few spas in this country, namely, muds, peats, fangi, boues, limans, gyttja, etc., known also by many other foreign names, and all used for the purpose of preparing baths, packs and the like in the treatment of rheumatism, various skin diseases, etc. The circumstance which brought about this invention of a new

nature, characteristics and composition of the medium, and especially on its thermal and other physical properties, as well as on clinical experience.

Peloids differ from "cataplasmata" or poultices in that the latter as defined in the B.P.C. are "thick, pasty preparations usually intended to be made extemporaneously. They are frequently prepared with stale bread, crushed linseed," etc. Peloids, on the other hand, consist of muds, peats, etc., already existing in nature or

readily producible from naturally occurring material, the material being usually associated with the water of some mineral spring, the waters of which have medicinal value. Thus one has the solid components of special characteristics and medicinal virtue, combined with water, entitled to equal claim.

Peloids are broadly classified as "muds," which are mainly inorganic, often of subterranean origin, with a variable amount of adventitious organic matter, frequently algal; and "peats," which consist essentially of vascular vegetable debris, with smaller proportions of mineral matter and mineral water, both of which are adventitious.

New Zealand provides ideal conditions. The mud is thrown up by geysers, often boiling hot, and is deposited around the crater, fully saturated with the water of the source. This is visualised in our first illustration, taken by permission of the New Zealand Government from Dr. Arthur Stanley Herbert's very interesting volume "The Hot Springs of New Zealand," published by H. K. Lewis. The muds are derived from various argillaceous rocks by the action of the volcanic



"THE INFERNO," TIKITERE, NEAR ROTORUA. A GROUP OF LARGE BOILING MUD POOLS, BLACK, SULLEN, AND REPELLENT IN THEIR HIDEOUSNESS, AT ONE TIME MUCH USED FOR MUD BATHS.

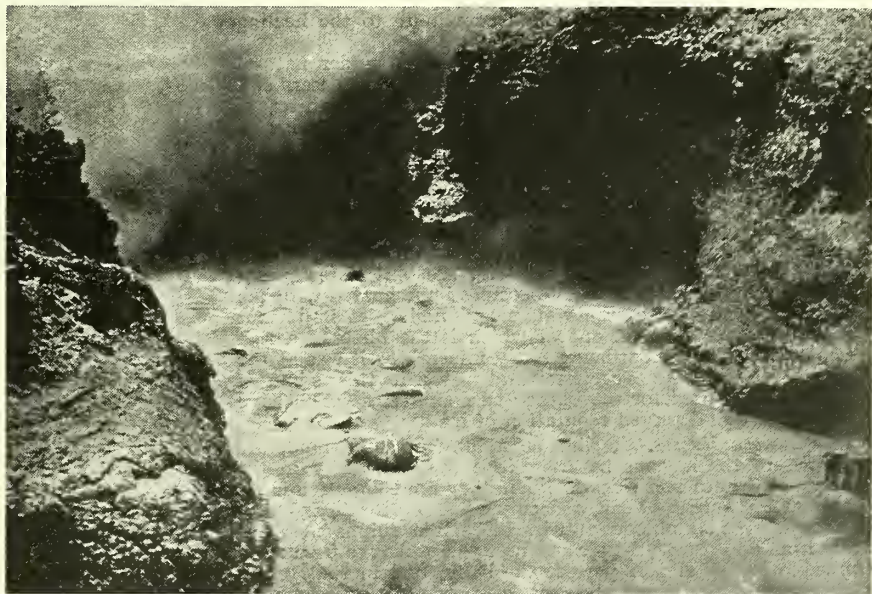
name was the appointment of a special committee by the International Society of Medical Hydrology to regularise the analysis and general study of such media.

It was found that "the Greeks had a word for it," namely, "*pelos*" meaning mud, and "*-oid*," signifying of like nature; and so a "Peloid" (comparable with the words "alkaloid" and "colloid") was defined as:

"any naturally produced medium consisting of a uniform mixture of finely divided organic and/or inorganic solid matter and water, such as is applicable in medical practice as a cataplasm for external treatment."

It follows that "pelology" is the science, study and description of peloids, and "pelotherapy" is medical treatment by peloids.

The application of these media in the form of packs to various parts of the body affected by rheumatism or other complaint has been attended with very great benefit to hundreds of thousands of patients during the past 100 years or more, for the greater part of which time the treatment has been conducted in accordance with empirical experience of local medical men and others. For some years it has been realised that the subject needs systematic study, and that treatment by this means must be based on the



THE SURFACE OF A "PORRIDGE POT." FIRST A STEAM BUBBLE RAISES THE MUD IN A GLISTENING DOME: THIS BURSTS, AND THE OUTCURVING SEGMENTS FORM THE "PETALS" OF THE "FLOWER," WHILE THE STEAM JET OF THE FUMAROLE SHOOTS "STAMENS" THROUGH ITS CENTRE: THE ENSUING BUBBLE RISES TO FORM A "PISTIL."

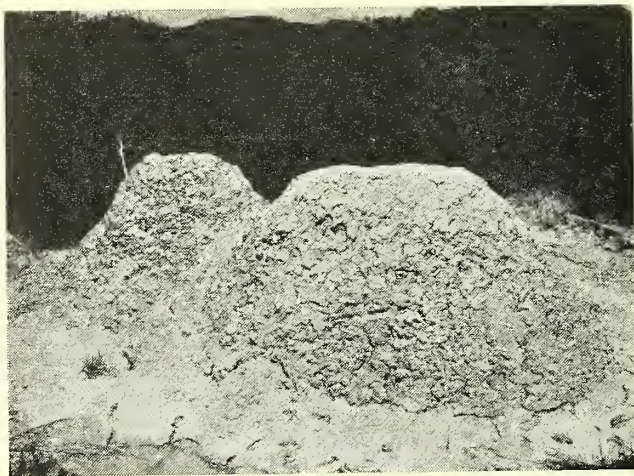


springs, and consist of silica (say 65 per cent.), alumina (5 to 20 per cent.), organic matter (say 10 per cent.) with small quantities of sulphur (free and combined), etc. Not infrequently they contain traces of gold, silver or even metallic mercury. Unfortunately these amenities are out of reach of the majority of people in the Northern Hemisphere. The pools and craters assume very varied and fascinating forms, as exemplified in the second and third illustrations.

In this country the idea of combined origin is exemplified by the mud at *Woodhall*, where the fine, sandy solids originate in the adits through which the mineral water flows; a shovel removes the mixture of finely divided mineral and water ready for use as a pack, save for adjustment of temperature. It is not volcanic.

Continental Sources

At *Pistany* in Czechoslovakia the mud is carried up to the surface in the current of the thermal water of the spring, and deposited on the banks of the River Waage, where, however, it is combined with water and other deposits at the surface, and



A MUD VOLCANO IN A QUIESCENT STAGE AND PARTLY DRIED. THE HEIGHT OF THE CONE WAS ABOUT SEVEN FEET, AND IT PERSISTED FOR SEVERAL YEARS, IN SPITE OF DENUDATION BY HEAVY RAINFALL. (ROTORUA DISTRICT.)

produces a native mud mixture of special properties, in which sulphur compounds are formed and contribute to the healing properties.

At *Dax* in south-west France the formation under natural conditions is quite different in character, and is thus described:

"This river presents the peculiarity of being subject to frequent overflowings in winter, and after each overflow it leaves a thick deposit of slime on its banks, as fertilising as that of the Nile. This slime consists of clay, silica and calcareous matter; it is soft to the touch, of a yellowish colour, and dries in the sun, preserving its colour. The spates of the Adour deposit this slime at a certain distance from the river, up to the immediate neighbourhood of the hot mineral springs which, as we have just said, are only a few yards distant. After that, the slime becomes impregnated with the elements contained in the waters and undergoes important modifications, the chief one of which is the birth of a rich flora, so rich that from being solely mineral, as it was at the outset, it becomes *vegeto-mineral*. When this slime is "ripe" it is used for the baths and compresses which have made the well-deserved reputation of *Dax*."

In *Southern Russia*, the *limans*, a form of slimy mud, are produced in the lagoons by the Black Sea, especially in the districts of *Crimea* and *Odessa*, where they are characterised by considerable content of salt and sulphate compounds and contain sometimes notable quantities of certain sulphates, especially iron, and some sulphides. There the packs are frequently applied over the greater part of the body, and in that region the elevation of temperature is attained by exposing the "packed" patient to the sun, the head being shaded.

In *Sweden*, "gyttja" are used. They are black-brown odourless masses of smooth, buttery consistence, composed largely of diatoms and decayed algal matter; they may occur

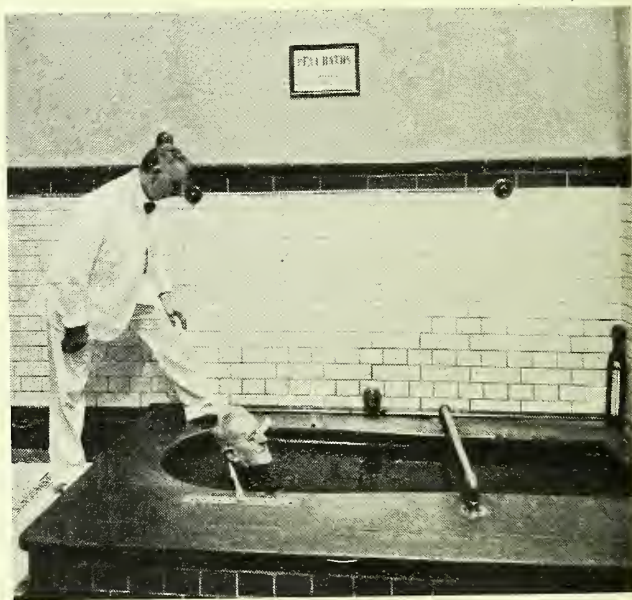
as settlements at the bottoms of lakes, or overlain with moss.

Franzensbad is renowned for its peat, which is medicated by nature with a considerable quantity of ferrous sulphate in a state of more or less active oxidation. Many other peloids owe not a few of their peculiar properties to the presence of iron and/or sulphur in some form. In various parts of the Continent there are all sorts of varieties of peloid.

British Sources

In our own country at the present time there is a move towards exploiting similar media, some of which have certainly been too little appreciated hitherto. The mud at *Bath* consists of a local native siliceous base in a state of fine division saturated with the radioactive waters of the Bath spring. It exhibits thermal properties which have been closely studied, with very interesting results, which are to be described in the July number of the "Archives of Medical Hydrology," the organ of the Society named. At *Harrogate* a peat is obtained from the moors and mixed with the sulphur water for which Harrogate is noted. In the same spa also there has been used a mud which was discovered a few years ago at *Harlow Car* in the neighbourhood of Harrogate. This is said to possess some of the properties characteristic of the *Pistany* mud. *Buxton* also claims a peat, which, like the Harrogate medium, is mixed with the local spa water, and is used for either total or partial application.

A notable fact associated with all this medley of media is that they are recommended (mainly by reason of their physical properties) for much the same and similar complaints, although it is recognised that the properties differ considerably in value, according to the nature of the peloid, that is whether they are



TAKING A PEAT BATH AT HARROGATE.
(Photo by courtesy of the Harrogate Corporation)

peats, muds, limans, etc.; and the natural question is, why? The answer can come only as a result of closer study of their chemical, physical and biological properties, when, and not until, sufficient reliable data are available to enable one to compare a peloid of one class with that of another.

Factors in Clinical Value

Viewed analytically, it is desirable to consider the components in the broad sense rather than the chemical composition of the whole, or even the chemical composition of some particular parts. The factors which contribute to the clinical value of a peloid are: (a) The mineral constituents. (b) The soluble salts which, in general, are those of the mineral water saturating the peloid. (c) The components soluble in dilute acid, such as chalk, certain sulphides, oxides and the like. (d) Organic structures, especially to ascertain whether these are



algal in type, as in many muds, or vascular as in the majority of peats. (e) Organic substances such as humus, resins, organic acids, etc. (f) The nature of the bacteria present, some of which, as in the case of "beggatoa" (sulphur bacteria), are beneficial; needless to say the peloid should be free from pathogenic organisms. (g) The reaction, whether acid or alkaline.

But while the composition of the peloid is highly important, some of the *physical properties* are of even more significance, and this applies especially to the thermal properties: (i) thermal conductivity, (ii) specific heat or heat capacity, (iii) heat retentivity or heat retaining properties, and the way in which these vary with the moisture content of the mass. Importance of this is appreciated better when it is borne in mind that one function of a peloid is to allow of a higher temperature being tolerated by the patient over the affected part than is generally possible by other means. The lack of any methods for the determination of these properties, which are at the same time satisfactory and reliable and easily attained by any reasonably skilled worker, has without a doubt hindered the closer investigation of these media in the past. But this need has now been met, and a full report thereon will be available in

the July number of the "Archives of Medical Hydrology," where also the measurement of the plasticity or consistence of the peloid is also considered.

The *manner of treatment* varies widely with different media in the several countries, but there is the general division into mud or peat "baths" and mud or peat "packs." The former presumes the immersion of the body wholly or partially in the mass. At some spas, for example, Harrogate (see the fourth illustration) the peat or mud is reduced to the consistence of a thick soup; the medium is fluid, and it is administered in an ordinary slipper bath.

The "pack" is applied locally in the form of a poultice to any part or parts of the body. The peloid is mixed with sufficient water to reduce it to the consistence of soft butter, in which state it is applied directly to the patient or enclosed in muslin or other thin material in the form of a compress.

In either case the temperature and the duration of application is carefully controlled under medical direction. The last condition is important, since injudicious treatment may lead to trouble. The temperature for the baths is roughly 95° to 105° F., and the duration from five to twenty minutes; that for the packs 110° to 120° F., and twenty to forty minutes.

Japanese Agar

A Major Exporting Industry of Japan

By Herbert Leopold

AGAR is manufactured by dehydrating and drying boiled gelidium jelly, made from *Gelidium amansii*. It is not only used as foodstuff, but also for bacteria culture, for the preparation of wafers, chemicals, confectionery and canned goods, as the starch for fabrics, and in the manufacture of alcoholic liquors. In the United States it is much used medicinally, as it contains some potassium iodide.

In 1932 the annual output of agar totalled more than 1,500,000 kilograms, representing more than 1,423,000 yen (£142,300). Of this, 1,285,000 kilograms was exported. The manufacture of agar

Peculiar to Japan

is thus demonstrated to be one of the most important exporting industries of Japan. The market for agar, once peculiar to Japan, has been extended to all countries of the world. The principal producing centres

are Osaka, Kyoto, Hyogo and Nagano Prefectures, all situated in the southern part of Hondo (Honshu), the main island of the archipelago of Japan.

These districts are most convenient for obtaining raw materials and are endowed with a suitable climate for manufacturing. The clear mountain streams, essential for bleaching the seaweeds, run close to the coast in these districts. In North Saghalien (Karafuto) 100,000 kilograms of agar are produced by an alternative method. The American Agar-Agar Company also manufactures agar at San Diego, California, and other centres are at Chekiang Province, China, and Odessa, Crimea, but the combined output of these

external centres is very small. The export of agar was first started as recently as the early years of Emperor Meiji, though the production of Japanese agar originated in the 17th century. In 1868 the total export of "kanten" amounted to only 62,697 yen (£6,270) in value, with China as the chief market.

Agar is exported now to all European countries, to North, South and Central America, the Straits Settlements, the Dutch East Indies, and elsewhere, particularly by the Agar-Agar Manufacturing Guilds in Miyakawa Village, Nagano Prefecture and in Osaka. The product from the Osaka, Kyoto and Hyogo districts is known as "Kobe Kanten," owing to its being exported via Kobe. "Yokohama Kanten," from the Nagano and Yamanashi Prefectures, does not compare with "Kobe Kanten" in quality.

The percentage production of agar in the principal producing centres is as follows:—

Name of Prefecture	Percentage of the total output
Nagano	30
Osaka	28
Kyoto	12
Hyogo	4
Yamanashi	3
Total	77

The annual export to Great Britain is about 280,000 lb.

A VERDICT ON ASPIRIN.—The following statement occurs in a recent report from the Council on Pharmacy and Chemistry of the American Medical Association:—"Aspirin (acetylsalicylic acid) is potentially a dangerous drug and its unqualified use as a home remedy should be undertaken, originally in any case, under the guidance of the family physician, whose knowledge of the personal characteristics of the individual patient can alone render such use safe and advisable."



Agar (*Gelidium amansii*)



THE PHARMACEUTICAL SALESMAN I.

*A Review of Progress and Opportunities in the many Branches
of a Modern Chemist's Business*

How to Sell Vitamin-containing Products

OF the making of vitamin-containing products there appears to be no end, and it is pardonable if the chemist is at times bewildered as to which vitamin preparation he should sell when a customer asks his opinion. If the chief vitamin-containing products on the market are first considered it will be found that these contain the vitamins A, B and D, vitamin C being, perhaps, the least important. These products may be classified as follows:—

- Cod-liver oil and halibut-liver oil
- Malt extract
- Malt extract and cod-liver oil
- Malt extract with vitamin concentrates
- Food products containing vitamin B
- Vitamin concentrates which contain either vitamin A or vitamin D, or both
- Concentrated orange products, tomato juice, or some other fruit juice which contains vitamin C

What is the likely answer of a chemist behind the counter who is asked by a customer which vitamin-containing product she (the customer is most likely to be a woman) should purchase? Without some idea as to the actions and uses of vitamins it is not an easy matter for the chemist to give an entirely satisfactory reply. Probably, however, his recommendation will be a non-committal one; of a certain product, for example, being very palatable, tasteless or economical, and so on, and in the end the customer departs with a purchase which may or may not suit the case she has in mind. The most popular preparation of the type under review is cod-liver oil emulsion, a combination of cod-liver oil and malt, or a mixture of malt extract with the added vitamin concentrates. Until the advent of halibut-liver oil, cod-liver oil was considered to be the most potent source of vitamins A and D. Halibut-liver oil, however, is more concentrated and can be taken in correspondingly smaller doses. The presentation of these oils in a manner which is pleasing to a patient is a matter of pharmaceutical manipulation, and there can be little doubt that from the point of view of elegance and palatability many of the oily preparations on the market to-day attain a very high standard. In order better to appreciate the virtues of the various vitamin-containing

preparations it may be advantageous to refer briefly to their vitamin contents.

Cod-liver and Halibut-liver Oils

It is common knowledge that cod-liver oil has been used for many years in the treatment of tuberculous conditions, and it was for long believed that its virtue lay in the small quantity of iodine contained in organic combination. It was not until the discovery of vitamin A by Hopkins in 1912 that it was realised that in cod-liver oil there was something else which was the potent substance. The earliest vitamin concentrate which was isolated from cod-liver oil was thought to be a single vitamin, but was later found to contain at least two. These are now well-known as vitamin A and vitamin D, and are of very great importance in body metabolism. Vitamin A is concerned with the ability of the tissues to resist bacterial invasion, and it has been shown that children adequately supplied with this food factor during the winter months are less likely to suffer from common colds than are those who do not receive an adequate supply of the vitamin. Vitamin A is also concerned with growth. Vitamin D, on the other hand, is associated with the prevention and cure of rickets. Children whose vitamin D supplies are adequate in early childhood rarely suffer from this disease. It is now even considered advantageous for expectant mothers to receive supplies of this vitamin. It has been found, however, that it is not advisable to give either vitamin A or vitamin D alone; it is preferable to give them together, the reason put forward being that advanced cases of rickets may be disguised by stunted growth due to the absence of an adequate supply

With this issue we begin a series of articles in which we propose to discuss methods of salesmanship, especially in regard to requirements of the chemist and druggist. The chief reason why many methods of salesmanship fail is because they are too abstract, and have little practical connection with the products which are being handled. Abstractions in salesmanship have their place, but it can hardly be denied that the most satisfactory salesman is the one who convinces the customer that he (the seller) is completely familiar with the nature of the goods he is selling, and that he can give good reasons why one class of product should be preferred to another. In this series we hope to strike a new note in pharmaceutical salesmanship. It will be our endeavour to suggest why one product should be sold rather than another, and we will leave to a second place questions of quality and price, which, although of the utmost importance, are perhaps less convincing than the concrete reason. In view of the importance of adequate nutrition we start with a brief discussion on the somewhat difficult subject of "How to Sell Vitamin-containing Products."

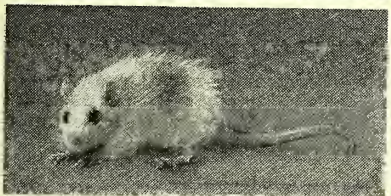
of vitamin D. The correct procedure, therefore, is to give vitamins A and D. The chief difficulty is to decide in what form they should be given. If the case in question is simply that of a growing child in need of extra nourishment the problem is less difficult, and some form of vitamins A and D can be given with advantage. Where rickets has actually ap-



peared, however, the case is one for a medical man, who will probably suggest intensive treatment with Vitamin D concentrate supplemented perhaps by a preparation containing the two vitamins in a suitable vehicle. It may be recalled that before the discovery of vitamins soft water was, in many cases, considered to be the underlying cause of the bowed limbs of children in certain great cities. In those days the chemist was busy selling lime water. In these more enlightened times, however, it is now known that lime water, without correct dieting in other directions—notably in regard to vitamin content of food—is practically useless, vitamin D being especially concerned with what is termed "the calcium-phosphorus balance" of the body. That is to say, the intake and output



Rat 1.—Fed on diet containing adequate Vitamin A.



Rats 2, 3 and 4.—Fed on diet devoid of Vitamin A.

Copyright, by courtesy of
Burroughs Wellcome & Co.
(The Wellcome Foundation Ltd.)

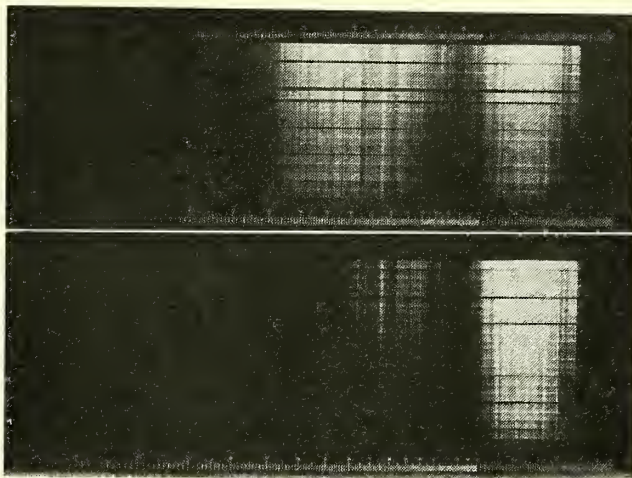
of these two elements is regulated by this remarkable catalytic agent. It is possible to obtain convenient preparations of vitamins A and D in a suitable form for administration. For children, however, it is undoubtedly advantageous to provide them with an agreeable and palatable substance in which the vitamin content is definite, for the psychological effect of a palatable preparation, to say nothing of the extra food

value of the vehicle, must not be overlooked.

The chemist is now in a position to consider which of the preparations he will recommend. Now is the time for price, quality and possible psychological effect. Let us assume that the chemist will eliminate the oily substances themselves and administer a preparation containing either malt and oil or malt and one of the reinforced preparations. In such a preparation he has, or should have, present a certain proportion of vitamin B in addition to the other two factors. It is doubtful if cod-liver oil will ever lose its traditional reputation of being nauseous to take. Halibut-liver oil has the advantage that a much smaller quantity is required, and it can be disguised very readily. Against this, however, is the fact that the quantity of cod-liver oil taken has a certain food value. Most probably, however, the chemist will decide to sell a preparation of one or other of these oils either in the form of an emulsion or in combination with malt extract. He can learn from his customer the type of patient for whom the product is required and use his judgment accordingly, bearing in mind, of course, palatability, elegance, cost to the patient and, of course, profit to himself.

Vitamin B

Vitamins A and D are described as being fat-soluble vitamins. Vitamin B, or what is more correctly termed the



Estimation Spectrophographs of vitamin A in:
A (above) Halibut-Liver Oil.
B (below) Cod-Liver Oil.

Specially taken for the C. & D. by Crookes Laboratories.

B Vitamin complex, is a water-soluble vitamin found in abundance in fresh yeast as well as in wheat germ embryo. Vitamin B deficiency is not prevalent in this country, yet there may be slight conditions of ill-health which owe their presence to a deficiency of this complex factor. The most important B vitamins are B₁ and B₂. Up to the present five B vitamins are described. Deficiency of B₁ is responsible for beri-beri, while lack of B₂ causes pellagra, both diseases being confined to the tropics. But it is considered that B vitamins act upon the intestinal tract so that the metabolic or digestive processes of the body act in regular fashion, and vitamin B preparations are frequently suggested in this country for this purpose. Vitamin B is also held to be a useful addition to the food of nursing mothers, and for this reason plain extract of malt is frequently advocated. Extract of malt without cod-liver oil may be suggested with advantage for administration to nervous and sickly children who cannot tolerate fats and to whom an increased supply of easily digestible sugar would be valuable. Within quite recent memory it was the custom for mothers to force fatty preparations, such as cream and cod-liver oil and malt products, upon their weak and sickly children, whose natural nausea to such preparations was considered to be all the more indicative of their need for them. Administration of fats in such cases undoubtedly caused not only the sickness but intestinal disturbance, and sometimes aggravated the intestinal disease, which was usually termed celiac disease, from which most children of the nervous type appeared to suffer. The administration of a plain extract of malt, therefore, to such children often works wonders because not only does it present vitamin B, which is considered to be useful in such intestinal disorders, but it also presents an adequate supply of malt sugar which makes up for the lack of fat food.

Vitamin C

Preparations of vitamin C are probably of less importance from the pharmaceutical point of view, but there are cases where a bottle-fed baby may be suffering from scurvy due to lack of vitamin C, and the chemist can often save a mother the expense and the trouble of preparing orange juice by offering one of the concentrated



X-ray photograph of leg showing rickets due to vitamin D deficiency. Copyright, by courtesy of British Drug Houses.



orange or tomato juice preparations which are now available in commercial quantities. It is common knowledge that every bottle-fed baby should nowadays have orange juice, the reason being that the method of preparation of dried foods for children results in the destruction of vitamin C, this being one of the most easily affected of the vitamins.

The Vitamin Concentrates

Vitamin A is obtainable in tablets in the form of carotene—the form in which it exists in the vegetable kingdom before it is converted into vitamin A. Vitamin D is also known as calciferol—the crystalline form of irradiated ergosterol. These concentrates are extremely powerful substances and should only be administered under medical advice. Chemists who consider it desirable to recommend such preparations should issue a warning with their recommendation.

It is reasonable to assume that even when all the functions of vitamins are known the most satisfactory method of obtaining them all will be a well-balanced diet. Unfortunately, it is less easy in these days to obtain a diet which is, in fact, well balanced. Methods of preparation, storage, transport, changes of temperature and so on, alter the food

before it reaches the consumer. It is, therefore, a strong argument that however adequate a person's diet may seem to be, it is almost certain to be deficient in essential vitamins in some degree. Especially is this so in regard to children, and no selling campaign should omit strong reference in favour of vitamin-containing preparations.



A Vitamin Testing Room at Parke, Davis & Co. Each cage houses a rat

Development of Pharmacy in West China

By E. N. Meuser, Pharm.D., West China Union University, Chengtu, West China, 1935

THE ancient type of Chinese medicine shop continued general until the arrival in China of the medical missionary and the representatives of Western Pharmaceutical Manufacturing Concerns. With the introduction of Western medicines there came a gradual transformation. The small, floorless drug shop with its miscellaneous assortment of crude native drugs, mostly of animal and vegetable origin, cluttering up walls, ceiling and counter gave way to the modern drug store—large, clean, bright and airy, with a great variety of drugs, chemicals, surgical supplies, chemical apparatus and patent medicines on display, and with up-to-date fixtures and furnishings.

Unfortunately, in most cases, these drug stores are in charge of persons without pharmaceutical or medical training, and there is, therefore, promiscuous buying and selling of Chinese and foreign drugs, patent, poisonous and otherwise. This obviously constitutes a real danger. The Chinese Ministry of Health, realising this, has provided for the sale and dispensing of medicines by pharmacists only. It also stipulates that there shall be qualified pharmacists on the staff of all hospitals.

Because of the great amount of medicine required in China, and the fact that China herself produces such a tremendous variety and abundance of crude drugs, research and manufacture call for the services of many trained pharmacists.

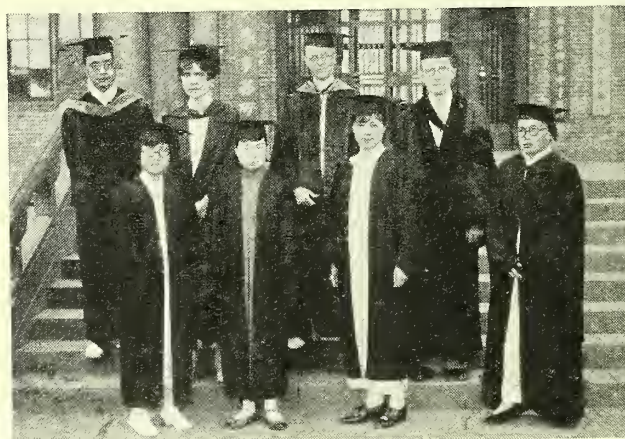
Obviously, without schools of pharmacy, neither research and manufacture nor the enforcement of the Central Government laws can be carried out. However, to try to meet

these needs, schools of pharmacy have been opened in different parts of China during the past three years. Not the least important among these schools recently opened is the Department of Pharmacy in the West China Union University, Chengtu, West China. In this Department a four years' course of instruction is given leading to the degree of Bachelor of Pharmacy (B.S. in P.).

When the Department of Pharmacy of the W.C.U.U. was opened in autumn 1932 there was an enrolment of sixteen students. Four students transferred from other departments and registered in the third year of pharmacy. The latter had the distinction of being the first pharmacists to graduate from any University in China.

In 1934 the Central Government showed its interest in the development of pharmacy by making a grant of five thousand Chinese dollars (about £500) toward the purchase of equipment. Further financial co-operation will, however, be constantly needed for maintenance.

Modern scientific pharmacy has a vital service to render to China. In research in crude drugs, manufacture of medicines, hospital dispensing, and private practice, it offers a workable solution for some of China's economic problems.



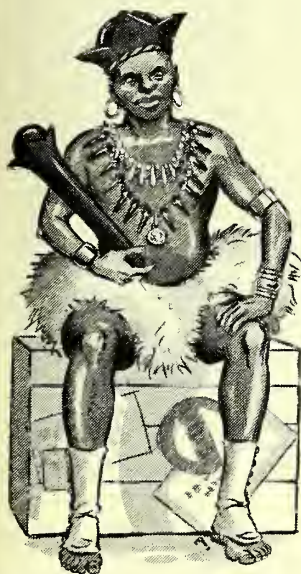
A GROUP FROM WEST CHINA UNION UNIVERSITY, PHARMACY DEPARTMENT. SECOND FROM RIGHT, BACK ROW, DR MEUSER, HEAD OF DEPARTMENT OF PHARMACY.



The King of Cloves Holds Court

A Fantasy of a London Warehouse

By Herbert A. Berens, B.A. (Cantab.), F.C.S.



Eugenia Caryophyllata
"King of Cloves"

AS I slept it seemed that I was being transported on some magic carpet to all the countries of the world, and scents from all the world seemed blended here. It was the same vaulted room, yet there was more life and gaiety than before. The Oils had accepted the invitation to be present, and their youth and beauty added a new note to the assembly. The King of Cloves, Zanzibar, made a short speech of welcome to his court. He was glad that youth was taking part in their deliberations. King Otto of Bulgaria rose next. He was dressed in red velvet and white ermine, and expressed the pleasure he and his friends felt in being invited to meet the Drugs. He felt that the Oils might render service to them in explaining something of modern tendencies, especially in the science of "blending," which was significant of the present trend in human affairs. His own Court was full of young pretenders claiming equality, and much of his time was

occupied in contesting their claims. Support of this contention came from an American in checks and horn-rimmed spectacles who hailed from Michigan. He boasted of his English origin. Competition was now coming, not only from the neighbouring States, where the soil was different, but blended oils had appeared on the market, claiming to come from his homeland.

Ancient and Modern

Suddenly we were transported to ancient times when pyramids were being built by hand by those in bondage. A patriarch with flowing hair and beard was talking. He said that now he came from Sicily, but in the early history of the race, when caravans of spices came on camels' backs from Ur of the Chaldees, he had saved a nation wandering in the wilderness of Arabia. He it was who had supported Moses' arms when at the battle of Raphidim the Israelites had triumphed over the Amalakites, and, without him, Joshua would never have led his followers into that land flowing with milk and honey. Then old Manna Mannite resumed his seat. A daughter of the Royal House of France, who claimed descent from Marie Antoinette, and looked with scorn upon the bourgeoisie, declaimed against the present-day desire for cheap perfumes. The Princess Geranium Bourbon raised her lorgnettes, surveyed the room with haughty arrogant stare and beckoning her attendant, Ylang Ylang, a Melanesian from Indo-China, swept from the room. Following their exit, Mlle. Jasmine de Grasse called to her fiancé, Bois de Rose, and together they tripped gaily towards the exit.

"Both blessed and cursed am I from China to Peru; I come from the Western slopes of the Andes. I was found there by brave Pizarro, and the Incas owed their powers of endurance to my leaves. Because of me, minor operations are possible without pain. Yet, because of man's avarice, I have been made a curse to humanity, as amongst the depraved I am much sought after, for the 'Snow Queen' is prized in the underworld of the cities. Smugglers know me well and could many a tale unfold. The League of Nations will soon decree that each and every country shall produce from me only what each requires for medical purposes—yet the dope fiends will get me, no matter what my price. I do not desire evil, nor to pander to human weakness, but my destiny is inexorable, and I must do as my fate decrees. I can bring both good and evil; it is for man to see that my influence is only for good." It was Erythroxylum Truxillense, the mother of Cocaine.

"I am very astonished that Erythroxylum Truxillense, coming as she does from West of the Andes, in the course of her remarks, should display a fatalism almost Oriental, and a philosophy which can hardly be considered as of the West." Papaver Somniferum, who exerted a strange hypnotic influence on all assembled, who made these remarks, continued: "I glory in my sleep-giving



Papaver Somniferum,
"exerted a strange
hypnotic influence"



Erythroxylum Truxillense:

"Both blessed and
cursed am I..."

powers, in the dreams I can arouse, surpassing far the imagination of a De Quincey. Into the humblest homes I go and bid them come to me, and each becomes a Haroun al Raschid—whose every whim is law, whose harems teem with beauty from all climes, and slaves bring cooling drinks in jewelled goblets. To each a little dream of paradise and then return to drudgery, until he seeks me out again—my slave for life. I am known through all the East, from Far Peking, past Ganges shores, to where the Bosphorus reflects the gold minarets of San Sofia. True, I am used for the relief of pain; morphine, codeine and papaverine, my children



are, but my chief joy is in the opium dens. The Government of India serves me well, and reaps important revenues from my cultivation."

The next to speak was a winsome creature, dressed as a Quaker maid in demure grey and white—a brunette with nut-brown eyes, willowy and gentle. Her home is America, but her soothing touch is known in every home—it was *Hamamelis Virginiana*, the Witch Hazel. Then two oils arose whose homeland until recently had been the South Italian groves, but now had spread to many countries of the world—California, Kenya and South Africa, and so they were not so exclusive as of yore. They told of lovers' meetings in their shade, of beggars lying in the sun, and of those strange, brutal and ancient bandits that were a menace to fair Sicily. Lemon and Orange Oils were known to all.

There was a daughter of the Bedouins, and with her, but of a still darker hue, her half-sister, daughter of an Indian Raj. They were Alexandra and Tinnevely, daughters of Senna. Alexandra was known to medicine for more than a thousand years. Her Indian sister, though not half her age was, like all Orientals, well matured.

"Since the Rockefeller Institute accepted my claim as the destroyer of the hookworm, I have become well known, but long have I lived and could much of the history of the United States unfold. My home is in fair Maryland. It was here I watched the fratricidal strife between the Northern and Southern States." Thus spoke *Oleum Chenopodii*, who resumed his seat while they were still applauding him.

Of Royal Lineage

The next, a ruler of the Mysore State, who long had sought a close monopoly, a diplomat of the Orient, both intellectual and philosopher, long known in Europe, where his agents were ever on the alert to serve his will. *Oleum Ligni Santali* had looked with scorn on his rivals, yet in this changing world the arrogants are some-



Cassia Acutifolia
and *Cassia angustifolia*,
"the sisters Senna"

times brought to heel, and it would be a bold prophet who would say which will prevail.

A fair virgin queen, from shaded nooks and thickets, not seeking notice, yet sought out by those who love her fragrance sweet, seemed a being from some other world, so frail she was, yet rightly named the Lily of the Valley—*Convallaria*.

"I come by sea from Hankow and Shanghai, but in the times of long ago I came by caravan from far-off mountain slopes 'twixt China and Thibet, down where the Indus takes the melted ice, where Sohrab and Rustum, unbeknown to each, fought while the armies watched—across the land where towers of silence hold their lonely watch and

draw the vulture from the azure blue. There I took ship and was by merchants called *Rhubarbum Turc*, though I never came from Turkish soil. At one time also I was wont to come across Siberia, but now the sea route is the only one I know to Europe. My tribe, so vast and ancient, is divided into clans—High Dried, so called from having dwelt aloft, strung in the sun; but more noble those of the tribe of Shensi, flat



Rheum Palmatum (from
China) called *Rhubarbum*
Turc.



Hamamelis Virginiana,
"dressed as a Quaker
maid"

and round, with contours of a more shapely mould. Long am I known in Europe, and have my place in every household." *Rheum Palmatum* then sat down.

Castoreum, the next speaker, also a noble figure amongst the perfumes, told stories of the North-West Frontier. He had much to say of the development of the Hudson Bay Company; and of dog sleighs trekking across the frozen wastes. He could sing the songs of the Yukon, and had been present at the cremation of Sam McGee.

Then arose a jovial spirit in cap and bells and long pointed shoes, and with an impish smile he told how he grew in the shade in moorland and in valley, how children loved him, and fairies used to hide within his bells, and that doctors called on him when all else failed. The foxglove, *Digitalis*, then related how a brother, *Lanata*, of whom he thought Science would yet hear much, had recently come from Austria.

White as the snows on Fujiyama were her robes, yet her cheeks were like the almond blossom for which her land is famed. She told many stories of old Japan: of her poets and her craftsmen, and the self-sacrifice and devotion of her Saumari. But to-day that was all forgotten and she was very glad to leave Japan and see something of the West. Very alluring and interesting was *Agar Agar*, the Geisha.

A horseman of the Sudanese who had imbibed the history of his race told of ancient caravanserais, and of how the Nile had cradled early man. He had been present at the death of Gordon, and might have caused a European War at Fashoda. It was *Gum Arabic* from sandy deserts south of Assouan.

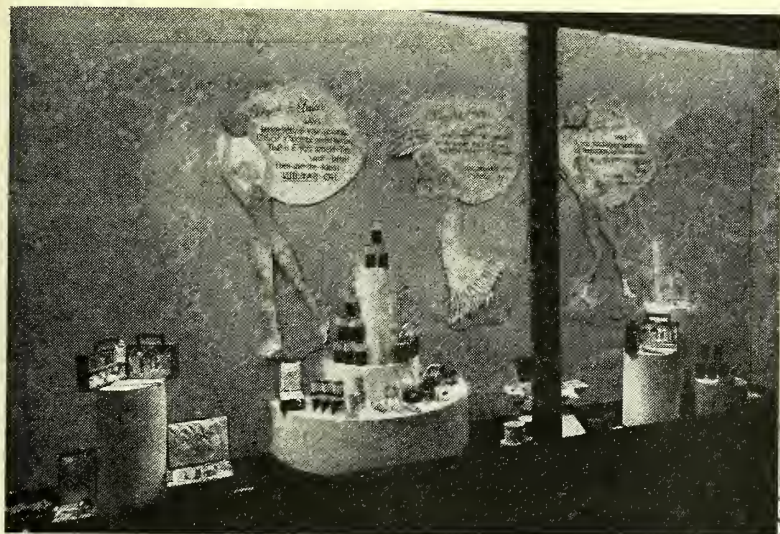
The King of Cloves then moved that the meeting stand adjourned, saying that he had to attend a very important conference with his brother of Madagascar, who was at present resident in the South of France, and that he would have an announcement to make at their next meeting.



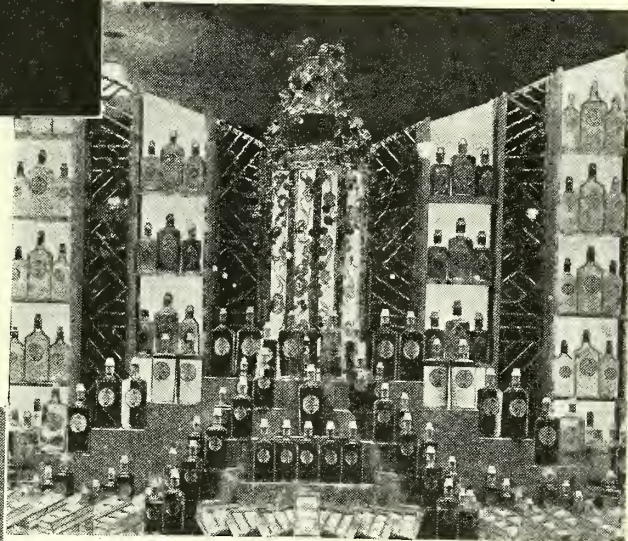
London—Paris and New York

A contrast in Styles

The display of skin products on the left, carried out by Harrods, Ltd., London, S.W.1, presents three selling-points in a style which is neither slavishly symmetrical nor freely naturalistic. The figures are definitely subordinated to the goods themselves, yet could hardly fail to carry their message to the onlooker.



This Parisian perfumer believes in the value of mass display. The centrepiece of floral design is flanked by arrangements of shelves on which he shows assorted hair preparations and soaps. This type of fitting can obviously be adapted to take many different products.



This New York window display has utilised perhaps the only possible theme for a perfume with the name of "Wedding Bells." Models of human figures are not as a rule employed in conjunction with perfumery displays, but here is a case where the figure—and the arum lilies—tell the story.



Ginseng—Costliest Drug in China

In the C. & D., August 7th, 1926, appeared a note on the Chinese drug Ginseng. The Chinese variety, it was stated, "is one of the oldest, most highly esteemed, and highest priced drugs in China." This statement is no less true to-day, and in the ensuing article a Tokyo contributor describes properties ascribed to ginseng by eastern writers and various government measures taken to control its production, and methods of cultivation.

THE cultivation of ginseng has its origin in the Korai age of Chosen, but there is no record of the method used, and the origin of Kojin or Yellow Ginseng is also obscure. In China, ginseng achieved an unparalleled reputation and brought great profit to dealers. For this reason, in the 21st year of King Eiso of the Li Imperial Dynasty of China (A.D. 1761) a tax was imposed on its manufacture. After that, for about a century, there was continuous trouble between manufacturers and officials. After 1897 the manufacturing of Kojin was placed under the control of "Kunnaifu" (Imperial Department of Chosen). The new regulations displeased the manufacturers, and a riot followed in 1897 ("the Ginseng Revolution"). The change of system was nevertheless carried out, and officials were stationed at Kaijo in order to control the cultivation and manufacture of ginseng. However, the producers suffered much damage, partly through the extortion of officials and partly through insect pests. As a result, Kojin manufacturing dwindled almost to nothing. To relieve the distress of Kojin producers, the then Government of Korea, in 1908, transferred the control to a new department. In July of the same year the Government put through the Monopoly Act, which established the Kojin Administration Bureau at Kaijo to protect and control the manufacture of Kojin and itself enter into production. In January 1910 Korea became amalgamated with Japan. Since then, under the Chosen Government, the Bureau has made every effort to improve cultivation and reduce pests.

Ginseng is produced through almost the whole of the Chosen Peninsula. The superior quality, called "Korai Ninjin," is cultivated near Kaijo and its vicinity. Japan, the United States and Manchoukuo also produce some species.

Ginseng is a perennial belonging to the natural order Araliaceæ. In 1929, experimental cultivation commenced upon a new variety discovered by the investigation depart-

ment of the Monopoly Bureau. Several varieties, each of the genus *Panax*, are now known to the world:—

1. *Panax quinquefolium*, Linn.
2. *P. Ginseng*, Nees, var. *Japonicum*, Nees (*P. Ginseng*, var. *Japonicum*, Maxim—*P. repens*, Maxim—*P. Ginseng*, var. *repens*, Maxim).
3. *P. Ginseng*, Nees, var. *Japonicum* f. *angustatum*, Maxim.
4. *P. Ginseng*, Nees, var. *Japonicum*, Nees, f. *dichrocarpum*, Maxim (*P. Ginseng*, var. *Japonicum* f. *dichrocarpum*, Maxim).
5. *P. Ginseng*, Nees, var. *Japonicum*, Nees, f. *xanthocarpum*, Maxim (*P. Ginseng*, var. *Japonicum* f. *xanthocarpum*, Maxim).
6. *P. Ginseng*, Nees, var. *Japonicum*, Nees, f. *trifoliatum*, Maxim (*P. Ginseng*, var. *Japonicum* f. *trifoliatum*, Maxim).

The root is transplanted between the middle of March and the first ten days of April of the year after sowing. Sunshine is harmful to ginseng, and during cultivation a straw roof is placed over the plants. As ginseng is extremely sensitive to



GINSENG PLANTS PROTECTED WITH STRAW ROOFS, CHOSEN, KOREA

injury from insects considerable expense is incurred in protective measures. Harvesting does not take place until six years later, between the middle of September and the end of October. The roots are carried to the Kaijo office of the Chosen Government, where those suitable for manufacturing are bought by the Government. The remainder are returned to the producers, who produce from them "Hakujin," or White Ginseng. Specimens of wild ginseng, obtained from the mountains, are said to be twenty, thirty or even a hundred years old. The greater the age of these uncultivated specimens the more pronounced is their therapeutic effect. Such old specimens, however, are seldom found to-day. Europeans who have lived in China are mostly of the same opinion as one of the United States Consuls in Korea, who states that from personal observation and experience he is satisfied that ginseng is an active, strongly heating medicine, and that caution is sometimes required in its use, as it occasionally causes boils and eruptions and sleeplessness and flushing ("Year Book of Pharmacy," 1887, p. 152). It is used by the Chinese in cases of extreme debility when a cardiac tonic is required.



Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude drugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values.

28 Essex Street, W.C.2, June 26

BUSINESS has been routine in character and rather sluggish. The general tone is steady, with price changes comparatively few. The products of the pharmaceutical chemicals market again show no material alteration. SALICYLATES are reported to be receiving a little more attention and CITRIC and TARTARIC ACIDS have moved well with the seasonal weather. Inquiry for some crude drugs is sustained on a fair scale, while some items remain neglected. AGAR is fully steady on spot and forward and should ultimately go dearer. ALOES practically clearer on spot and firm forward. Zanzibar CLOVES steady and dearer, with a short crop reported at the source. Shipment prices for HYDRASTIS are sharply dearer and may well go still higher. MENTHOL has had a rather poor week and values are barely maintained. BEES' and CARNAUBA WAXES continue to move up in value, with supplies of some descriptions very short. The products of the essential oils market are mostly meeting with a limited demand. The main feature is a sharp advance in the shipment market for Sicilian hand-pressed LEMON. CEYLON CITRONELLA continues to cheapen, but neither dealers nor consumers show interest. A little more business in JAPANESE PEPPERMINT this week; market steady. Spot supplies of good quality CASSIA are very short and firmly held at an advance.

Exchange Rates on London

THE following is a list of the chief Continental and other exchange rates at the opening on Wednesday morning:—

Centre	Quoted	Par	June 26	Value of the £
Amsterdam ...	Fl. to £	12·107	7·24½	11/11½
Berlin ...	Mks. to £	20·43	12·23	11/11½
Brussels ...	Belgas to £	nominal	29·25	16/7½
Copenhagen ...	Kr. to £	18·259	22·40	24/8
Lisbon ...	Esc. to £	110	109½	19/11½
Madrid ...	Ptas. to £	25·22½	36	26/4½
Milan ...	Lire to £	92·46	59½	12/10½
Montreal ...	Dol. to £	4·86½	4·94½	20/3½
New York ...	Dol. to £	nominal	4·94½	20/3½
Oslo ...	Kr. to £	18·159	19·90½	21/11
Paris ...	Fr. to £	124·21	74½	12/0
Prague ...	Kr. to £	164·25	117½	12/0
Stockholm ...	Kr. to £	18·159	19·39½	21/4
Warsaw ...	Zloty to £	43·38	25½	11/11½
Zurich ...	Fr. to £	25·211½	15·08	12/0

Bank rate 2 per cent.

Pharmaceutical Chemicals, etc.

GENERAL conditions show little change, while business continues rather limited in volume. The seasonable weather has brought with it more inquiry for citric and tartaric acids.

ACETANILIDE.—Business limited; market steady: B.P. crystals and powder, 1s. 5½d. to 1s. 8d. per lb., as to quantity.

AMIDOL.—Convention prices unchanged: 56 lb., 7s. 3d.; 28 lb., 7s. 6d.; 14 lb., 7s. 11d. per lb., in 7-lb. tins.

ASPIRIN (TABLETS).—The wholesale scale of prices is as follows: Under 5,000, 3s. per 1,000; 5,000, 2s. 11d.; 10,000, 2s. 10d.; 25,000, 2s. 9d.; 50,000, 2s. 8d.; 75,000, 2s. 7d.; 100,000, 2s. 6d.; 250,000, 2s. 5d.; 500,000, 2s. 4d.; 1,000,000, 2s. 3d.; 2,000,000 and over, 2s. 2d. per thousand tablets. For over one million a rebate of 1d. per 1,000 on 10 million tablets over 12 months. Wholesale distributors' prices for smaller quantities would be dearer.

BISMUTH SALTS.—Makers' prices for these salts are steady. Carbonate, cwt. lots, 6s. 6d.; 8 lb., 7s. 3d.; smaller parcels, 8s. 6d. per lb., carriage paid. Metal value unchanged.

CHLORAL HYDRATE.—Makers' prices for this market steady: duty-paid crystals, in 14-lb. free containers, five cwt., 3s. 1d.; one cwt., 3s. 2d.; 28 lb., 3s. 3d.; 14 lb., 3s. 4½d. per lb.; 28-lb. jars one penny per lb. extra.

CITRIC ACID (B.P. CRYSTALS).—British makers quoting at 11½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers' prices for imported material are competitive.

CREAM OF TARTAR.—British material, 99 to 100 per cent., quoted at 79s. per cwt., less 2½ per cent. discount, nominal and without engagement. Dealers' prices for imported are competitive.

CREOSOTE (B.P.).—Business has been unimportant. Bulk quantities, in 25-kilo. demijohns, 1s. 9½d. to 1s. 10d.; smaller packings, 1s. 10½d. to 2s. 2d. per lb.

IODIDES.—Makers' scales of prices for these salts are steady. Potassium Iodide, B.P., one cwt., 5s.; 28 lb., 5s. 2d.; 14 lb., 5s. 4d.; 7 lb., 5s. 8d.; 4 lb., 6s. 2d.; smaller quantities, 6s. 8d. per lb.

MERCURIALS.—Makers' prices for these salts steady. Chloride, B.P., one cwt., 4s. 9d.; smaller quantities, 4s. 10d. per lb.

PHENACETIN.—Quoted values at low figures; business quiet. Crystals or powder, bulk quantities, 2s. 7d. to 2s. 9d.; smaller parcels, 2s. 9½d. to 3s. per lb., as to quantity.

POTASSIUM PERMANGANATE (B.P.).—Market steady, fair business. Spot, five cwt., 10d.; one cwt., 10½d. per lb., in drums; smaller packings, 10½d. to 1s. per lb.

QUININE SALTS.—Convention prices are steady. Sulphate, 2s. 1d.; bisulphate, 2s. 1d.; ethyl carbonate, 2s. 8½d.; salicylate, 2s. 9½d.; phosphate, 3s. 2½d.; hydrochloride, 2s. 7½d.; bihydrochloride, 2s. 10½d.; hydrobromide, 2s. 7½d.; bihydrobromide, 2s. 10½d.; valerianate, 3s. 7d.; hypophosphite, 3s. 10½d.; alkaloid, 2s. 11d. per oz., carriage paid on bulk quantities; 100-oz. tins free, smaller packing extra.

SALICYLIC ACID (B.P.).—Inquiry about average; makers' prices unchanged: five cwt., 1s. 7d.; one cwt., 1s. 7½d.; 28 lb., 1s. 8d.; 14 lb., 1s. 9d.; 7 lb., 1s. 11d.; 4 lb., 2s. per lb.

SALOL.—Not much inquiry; market steady: spot, crystals, two cwt., 3s. 6d.; one cwt., 3s. 6½d.; 56 lb., 3s. 7½d.; smaller parcels, up to 4s. per lb.; powder, 2d. per lb. extra.

SANTONIN.—Spot prices are keeping steady in the region of £11 7s. 6d. per kilo., and slightly less for bulk quantities.

SODIUM BENZOATE (B.P.).—Competitive quotations; limited demand. Bulk quantities, about 1s. 6d.; cwt. lots, 1s. 7d.; smaller parcels, 1s. 8d. to 1s. 10d. per lb.

SODIUM SALICYLATE (B.P.).—Makers' prices steady; limited inquiry: home trade, crystals or powder, five cwt., 1s. 8½d.; one cwt., 1s. 9d.; 28 lb., 2s.; 14 lb., 2s. 2d.; 7 lb., 2s. 3d.; 1 lb., 2s. 6d. per lb.

SULPHONAL.—Very little inquiry on the market: crystals or powder, one cwt., 17s. 10½d.; 56 lb., 16s. 6d.; smaller parcels, up to 17s. 7½d. per lb.

TARTARIC ACID (B.P. CRYSTALS).—British makers quoting at 1s. 0½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers' prices for imported material are competitive.

THEOBROMINE.—Continental material is quoted as follows: pure, two cwt., 7s. 0½d.; one cwt., 7s. 2½d.; 56 lb., 7s. 4½d.; less than 56 lb., 7s. 6½d. per lb. Soda salicylate, two cwt., 6s. 1½d.; one cwt., 6s. 2½d.; 56 lb., 6s. 3½d.; less than 56 lb., 6s. 4½d. per lb., 5-lb. tins free, carriage paid. Other salts quoted proportionately.

Crude Drugs, etc.

AGAR.—Continued demand for spot and bonded goods, with values fully steady. Spot, Kobe No. 1, 2s. 6d.; No. 2, 2s. 4d.; Yokohama No. 1, 2s. 4d. per lb.; shipment, Kobe No. 1, 2s. 4d.; No. 2, 2s. 3d.; Yokohama No. 1, 2s. 2½d. per lb., c.i.f.

ALOES.—Extreme scarcity of supplies of Curaçao and Cape on spot, with shipment offers at the rates quoted last week.

ANTIMONY.—Chinese crude is quoted at £25 5s., c.i.f. English regulus at £76 to £77.

BALSAMS.—Business has been unimportant. Tolu, 1s. 4½d. to 1s. 5d. Canada, 2s. 11d. per lb., spot.

BUCHU.—Prices are fully held, with any Ovals from 1s. and rounds from 1s. 2d. to 1s. 3d. per lb., as to quality.

CASCARA SAGRADA.—A limited inquiry for new crop for shipment, with the quotation in the region of 29s. per cwt., c.i.f., for minimum car-load lots.

CHAMOMILES.—Remaining spot old crop flowers are quoted from 170s. to 187s. 6d. per cwt., as to quality.

CLOVES.—Market is firm at the advance. Zanzibar, spot, 6½d.; shipment, July-August, 6½d. per lb., c.i.f. Madagascar, 5½d., in bond; shipment, July-August, 5½d. per lb., c.i.f.



The landings of Zanzibar in London during the week ended June 22 were *nil*, and the deliveries 13, leaving a stock of 2,549. From January 1 to date the landings of Zanzibar have been 1,438 and the deliveries 1,983. Landings of Madagascar for the week ended June 22 were 47, and the deliveries 35, leaving a stock of 1,972. From January 1 to date landings of Madagascar have been 2,746 and the deliveries 1,021 packages.

COCONUT (DESICCATED).—Values are level on the week but the market is not so strong. Spot, fine, 25s.; medium, 25s.; shipment, halves, June, 22s.; July, 21s. 9d. per cwt., c.i.f.

COCOA BUTTER.—Prime English is quoted from 9d. to 9½d. and foreign from 8½d. to 9d. per lb., as to quantity.

COD-LIVER OIL.—The shipment market is rather quiet but is fully steady owing to poor oil yield this season. Finest Lofoten steam-refined non-freezing medicinal oil, 90s. to 92s. per barrel, c.i.f. London. Spot, in small lots, 135s. per barrel, ex store, duty paid. Newfoundland, non-freezing medicinal oil, 130s. per barrel, ex store. British non-freezing medicinal oil is now quoted at 110s. to 112s. 6d. per barrel, c.i.f. London, duty free, while quotations from another home source are at higher figures.

GENTIAN.—Dealers are doing a modest business with the price for small parcels about 35s. per cwt.

GINGER.—Market is very steady at good prices. West African, spot, 35s. 6d.; for arrival, 33s. 6d. per cwt., c.i.f. London stocks of West African, 2,772 cwt., compared with 6,726 cwt. a year ago.

GUM ACACIA.—Business light, but values are fully steady: spot, Kordofan cleaned sorts, 45s. 6d.; bleached, 87s. 6d. to 90s. per cwt.; shipment, Kordofan cleaned sorts, 42s. 6d. per cwt., c.i.f.

HENBANE.—Some spot supplies are being offered in the region of 82s. 6d. per cwt. for small parcels.

HONEY.—Business has been unimportant, as is usual at this time of the year. Jamaican, dark manufacturing to pale, 23s. to 28s. 6d. Californian, pale to white set, 46s. to 48s. per cwt., spot.

HYDRASIS.—The firmer shipment conditions indicated last week are now confirmed, with limited offers now firm at 7s. per lb., c.i.f., with a strong tendency to go substantially dearer in due course. Most spot holders are now asking up to 7s. 6d. per lb. and are not pressing business.

MENTHOL.—Market has been subdued all the week. K/S brands, spot, 11s. 6d.; in bond, 10s. 4½d.; shipment, June-July, 9s. 9d.; October-December, 9s. 4½d. per lb., c.i.f. sellers. Japanese shippers quoting prompt at 10s. 4½d. and October-December 9s. 4½d. per lb., c.i.f.

MERCURY.—Spanish-Italian for shipment is steady at 56 dollars, f.o.b. Continent, with small spot lots at £11 10s. per bottle, ex store.

OPIMUM.—A few small spot sales, with the price keeping steady at 1s. 5d. to 1s. 5½d. per unit, duty paid.

PEPPER.—Market remains dull and unsteady. Lampong, 3d., in bond; shipment, June-July, 3d.; August-October, 3d. per lb., c.i.f. Tellicherry; spot, 5d.; shipment, August-October, 45s. 6d., per cwt., c.i.f. Aleppy; spot, 5d.; shipment, August-October, 44s. 6d., c.i.f. White Muntok, spot, 10d.; shipment; all positions, 9d. per lb., c.i.f. nominal.

PIMENTO.—Values are about level on the week; market dull. Spot, 3d. per lb.; shipment, July-August, 28s. per cwt., c.i.f.

SAFFRON.—Average small spot business. Spot, B.P. 1898, prime, 40s.; extra, 38s.; super, 36s. per lb., and slightly less for bulk quantities.

SARSAPARILLA.—Market has been neglected: spot, grey Jamaican, 1s. 4d. to 1s. 4½d.; native mixed colours, 1rd. to 1s. per lb., as to quantity.

SEEDS.—**ANISE.**—Spot, duty paid, Spanish, 70s.; Bulgarian, 32s. 6d. **CARAWAY.**—Unchanged, Dutch, 35s., duty paid, and 28s. 6d., f.o.b. Holland. **CORIANDE.**—Spot, Morocco, 13s., duty paid, and 12s., in bond; new crop for June-July shipment, 9s. 6d., c.i.f., business done. **CUMIN.**—Morocco, spot, 52s. 6d., duty paid, and 47s. 6d., in bond. New crop for prompt shipment quoted at 37s. 6d., c.i.f. **FENUGREEK.**—Spot, Morocco, 15s., and Tunisian, 15s. 6d. New crop Morocco, for shipment, 9s. 6d. to 9s. 9d., c.i.f. quoted. **MUSTARD.**—English, 23s. to 34s. per cwt., according to quality.

SENEGA.—Shipment offers continue steady at 1s. 3d., c.i.f., and spot sellers are asking 1s. 3d. to 1s. 3½d. per lb.

SHELLAC.—Market is steadier at better prices. Spot, standard TN, orange, 49s. to 54s.; fine orange, 95s. to 145s.; pure button, 90s. to 100s. per cwt. For delivery, TN, June, 48s. 6d.; August, 49s. For arrival, T.N, June-July, 54s., c.i.f.

TONQUIN BEANS.—Remaining stocks of fair frosted are now held for 3s. per lb.

WAX.—**BEES'**: Market firm, with further advances recorded. Abyssinian, spot, 112s. 6d.; shipment, 98s., c.i.f. Benguella, spot, 112s. 6d.; in bond, 102s. 6d.; shipment, 105s., c.i.f. Conakry, spot, 112s. 6d.; shipment, 96s., c.i.f. Dar-es-Salaam, spot, 112s. 6d., nominal; nothing offering; shipment, 102s., c.i.f. **CARNAUBA.**—

Owing to shortage on spot and for shipment prices have again advanced sharply. Fatty grey, 152s. 6d.; shipment, June-July, 150s., c.i.f. Chalky grey, 145s.; shipment, June-July, 142s. 6d., c.i.f. Primeira, 220s.; shipment, May-June, 190s., c.i.f. Mediana, 210s.; shipment, June-July, 180s. per cwt., c.i.f.

Essential Oils, etc.

THESE markets remain on the quiet side and values in a few instances are very keen for business. Extremely low prices continue for Ceylon citronella, but little business is being attracted. Sicilian hand-pressed lemon has advanced sharply for shipment.

ALMOND.—Occasional small business. English-made, cwt. lots, 2s. 6d.; small parcels, up to 2s. 8d.; foreign, cwt. lots, 2s. 4d.; small parcels, up to 2s. 7d. per lb. Bitter, French, 9s. per lb.

ANISE (STAR).—Spot fully steady but quiet, with leads at comparatively cheap figures. Spot, "Red Ship," in leads, 2s. 4d.; in tins, 2s. 3d.; in drums, 2s. 2½d. Shipment, in leads, 2s. 3½d.; in tins, 2s. 1½d.; in drums, 2s. 1d. per lb., c.i.f.

BERGAMOT.—Market remains dull, with shipment offers at about 4s. 8d. to 4s. 10d., c.i.f. Spot, 4s. 10½d. to 5s. 3d. per lb., as to quality and quantity.

BOIS DE ROSE.—Brazilian on spot is quiet at 5s. 7½d. to 5s. 9d. per lb., as to quantity; shipment, 5s. 7d. per lb., c.i.f. Cayenne, 10s. 3d. per lb., c.i.f.

CAJUPUT.—Small business and rather easy. B.P., 2s. 1d. to 2s. 3d.; green, 1s. 9d. to 1s. 11d. per lb., as to quantity.

CASSIA.—The spot market tends firmer, with leads at about 5s. 4½d. to 5s. 6d. per lb. for good quality oil. Drums, about 5s. 1½d. per lb.

CEDARWOOD.—Market steady; business slow. African, 1s. 1½d., in drums, with American at competitive prices. Smaller parcels, up to 1s. 4½d. per lb.

CITRONELLA.—The shipment price for Ceylon is now about 10½d. per lb., c.i.f., with the dealers showing no interest. Spot, 1s. 1d. for drums and up to 1s. 4d. for small lots. Java, spot, drums, 1s. 3½d. to 1s. 4d.; small lots, up to 1s. 6d.; shipment, about 1s. 1½d., c.i.f.

EUCALYPTUS.—Market fully steady. Australian 70 to 75 per cent., 11½d. to 1s.; 80 to 85 per cent., 1s. 0½d. to 1s. 1d. per lb., landed, in bulk quantities. Spanish, 70 to 75 per cent., 1s. 2d. per lb.

GERANIUM.—The shipment market for Bourbon continues fully steady at 21s. 3d., c.i.f., for good quality oil, with offers restricted. On spot, holders quote from 21s. to 22s. 6d., as to quality. Algerian, 22s. 3d. per lb., c.i.f.

HO (SHIU).—Moderate business on spot, with prices ranging from about 1s. 9½d. to 2s. 1d. per lb., as to quality and quantity.

JUNIPER BERRY.—Market remains quiet. Good quality oil about 3s. to 3s. 3d. and the finest up to 4s. 9d. per lb., for small parcels.

LAVENDER.—Business has been unimportant: genuine Mt. Blanc, 38 to 40 per cent., is offered at 26s. to 28s., landed; a good quality at about 21s. 6d. to 23s.; and other offers are down to 17s. 3d. per lb., landed. Lavandin is steady at about 12s. 6d. per lb.

LEMON.—As recently forecasted in our reports, the shipment market for Sicilian hand-pressed has advanced sharply. At the moment offers vary but business is reported in good quantity up to 5s. 2d., c.i.f., for a first-class oil. It is now doubtful if offers by mail at less than 5s., c.i.f., would be workable. So far there are one or two spot holders willing to sell at well below 4s. 9d. for a medium class oil. The general tone is firm, with a shortage reported at the source.

LIME.—Fair inquiry continues on spot for small quantities of West Indian distilled, which is quoted at about 24s.; shipment, in bulk quantities, 22s. 6d. per lb.

ORANGE.—There has been very little interest in this oil for spot or shipment. Prices for all kinds are unchanged, with ample supplies available.

PALMAROSA.—Business of small account. Spot, 6s. 6d. to 6s. 7½d.; shipment, 6s. 4d. per lb., c.i.f.

PATCHOULI.—Limited supplies quoted on spot in the region of 10s. 6d. per lb., with very little interest shown.

PEPPERMINT.—There has been rather more interest and values are keeping steady. Japanese, spot, 3s. 10½d.; afloat, 3s. 9d.; shipment, June-July, 3s. 8d.; October-December, 3s. 4½d. to 3s. 5d. (business done), c.i.f. sellers. Japanese shippers quoting June-July, 3s. 9d.; October-December, 3s. 4½d. per lb., c.i.f. The American natural oil is quoted for shipment from 2 dollars 60 cents to 2.85 per lb., c.i.f., in drums.

PETITGRAIN.—Business quiet. Spot, 4s. 2d. to 4s. 3d.; shipment, about 3s. 6d. per lb., c.i.f.

SASSAFRAS.—Not much inquiry this week. Good quality natural oil about 4s. per lb. and lower prices for artificial oil.

SPEARMINT.—The spot market is better for good brands, with prices now in the region of 8s. 7½d. to 8s. 9d. per lb.



Correspondence

Letters should be written on one side of the paper only. Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor

Poisons Board Report

SIR.—It is to be hoped that secretaries of local associations will obtain for their own use copies of the report of the Poisons Board, if they have not already done so, as it includes remarks best read in their context. Unlike a well-known opera of Mozart's, of which the composer said that it contained not a note too many, the report is undoubtedly prolix, and might well have been overhauled by an experienced sub-editor before publication. At the same time, the very great amount of work that has been entailed by the formulation of the Poisons Rules and the preparation of the Poisons List must be acknowledged. I fear that the recognition of pharmacy and the pharmacist in the report is merely incidental—one might even say unwilling. We need not go far in our reading in order to discover that the protection of the public is the predominant factor that has governed the deliberations of the Board; we seem to have moved far from the position of Michael Carteghe's dictum that the education of the vendor is the best protection of the public. The vendor, indeed, whether he is an authorised seller or a listed seller, seems to have become a mere creature of rules; and in Paragraph 8 he is entirely ignored in favour of "the layman," who is supposed to want to know "whether a particular article (known to him probably by another name) falls within the application of the List"—as if "the public" (mentioned later in the same paragraph) ever wished to worry about the technicalities of a Poisons Schedule. After reading Dr. Parry's brilliant exposition of certain points that he has noticed, I can only conclude that as matters stand the lysol trouble, instead of being settled, is beginning over again in another form; and when I turn to the end of the Seventh Schedule and look at the list of poisons which may be sold by a listed seller I am reinforced in that opinion. Whether our new Home Secretary, with his acute legal insight and great experience, will sanction this arrangement as it stands remains to be seen. There is apparently a misprint at the end of the seventh line of p. 26, where "Section 19 (4)" of the Pharmacy and Poisons Act, 1933, is referred to: in my copy of the Act the relevant passage is Section 19 (3) (a)—the second (a) for the Section is so oddly divided as to have an (a) and a (b) twice. Whatever the final details of the Rules and List may be, chemists will lose an opportunity that may never recur if they do not insist on a fee for transactions involving the use of the poisons register.—I am, etc.,

A. E. (25/6).

The Opportunities of the Qualified

SIR.—One is forced to become somewhat cynical when one reads of the Pharmaceutical Society's intention of making the Qualifying examination more and yet more difficult as the years go by. Is it the policy of the Society to raise the examination standard to enable it to swell its coffers by means of the extra fees to be obtained by those who will have to "try, try, try again"? Or is it to be done with the laudable object of keeping the number of entries down to ensure employment on qualifying? If the latter is the reason, the expedient of making the examination stiffer would not be so necessary if the Society switched its floodlights on some of the wholesale and manufacturing houses. At the moment it is possible for a couple of company promoters to float a limited company, co-opt a chemist holding the Minor qualification of the Pharmaceutical Society and place him on its board of directors; then to take over various firms of manufacturing chemists and commence trading. Such a company can employ a few hundred on its staff and yet need not employ a qualified man otherwise than the one who must have a seat on the board of directors to enable the company to function. Is it possible for this director personally to superintend the distribution of poisons to customers and to check all poisonous ingredients in his company's galenicals? It should be made illegal for any manufacturing house to employ less than 40 per

cent. of qualified labour on its staff; the first step will then have been taken to create "Pharmacy for the Pharmacist."

Yours faithfully,

DRIFTWOOD (24/6).

Dispensing at Tariff Rates

SIR.—Your correspondent "Fifty a Day" (*C. & D.*, May 11, p. 581) is in my opinion correct in stating that it is not possible for one assistant to dispense 100 N.H.I. scripts a day, including the keeping up of the necessary stock mixtures, solutions, etc., unless the usual "frills" are omitted. From four to five scripts an hour is regarded as a fair average, but these may include batches of pills, etc., which are not likely to be ordered on a N.H.I. script. There is doubt whether, when overheads are considered, dispensing under such conditions can pay the pharmacist. I should rather regard N.H.I. dispensing as a means of getting people into the shop in the hope that they will require something in addition to their medicine; the same idea is illustrated in suburbs where tradesmen run post offices at quite a nominal stipend because a large number of potential customers for other goods come into the shop regularly. The question raised by your correspondent acquires added importance because of the growing number of public medical services in different parts of the country; payment to chemists for the supply of medicines is in every case based on the N.H.I. Tariff. The chemist will, therefore, gradually obtain a lot of extra work for which he will get payment on a low scale, and his opportunities for developing sales of profitable side-lines will become fewer.

Yours, etc.,

DISPENSARY (13/5).

Dispensing Notes & Difficulties

Change of Colour

SIR.—The following mixture appears to change colour on keeping. Does this indicate deterioration?

Bismuth. subnit.	...	...	...	3j.
Iodoform.	...	...	...	3ij.
Paraff. liq.	...	...	...	ad 3viij.

[When iodoform is exposed to direct sunlight it is oxidised by air to carbon dioxide, water and iodine. If mixed with oils, it decomposes in light to iodine and methyl iodide. Unless moisture is present, no decomposition of the bismuth subnitrate, with formation of nitric acid, takes place. A green bottle, therefore, is indicated for the preparation, although it is difficult to imagine that very much damage is suffered in the normal period of use. "Bipp" paste, the solid preparation of this type, is usually supplied in a covered pot, hence decomposition is rarely observed.]

An Incompatibility

SIR.—The following mixture deposits on the side of the bottle. Will you kindly suggest a remedy?

Theriacæ	...	...	...	2 lb.
Ext. glycyrrh. liq.	...	...	...	4 oz.
Oxymel scillæ	...	...	...	12 oz.
Ext. ipecac. liq.	...	...	...	1 oz.
Ol. anisi	...	...	...	M 20
Ol. menth. pip.	...	...	...	M 15
Aq.	...	...	...	ad 80 oz.

[Oxymel scillæ, being a very acid product, is incompatible with liquid extract of liquorice. Probably most of the glycyrrhizin is precipitated as glycyrrhic acid. Water also causes some separation of inert matter. Nothing can alter these facts. From 15 to 20 ounces of mucilage of tragacanth will perhaps help to improve the mixture, if it will stand it. This will suspend the precipitate.]



Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

W. E. H. (35/48).—MILK FEVER IN COWS.—In the calcium treatment of milk fever, calcium gluconate is occasionally given as a prophylactic to an animal known to suffer from this complaint, but administered orally in a case already suffering from the fever the animal would be dead before the calcium could enter the blood stream. The recognised treatment by calcium is by intravenous, intramuscular or subcutaneous injection of solution of calcium gluconate. Calcium chloride and lactate are sometimes employed, but these must be injected by the intravenous route. The gluconate treatment has achieved a considerable reputation, so much so that it has largely superseded intramammary inflation.

P. C. (6/68).—HAIR WAVING SOLUTIONS.—The following are formulas of the type you require:—

Permanent Waving Solution

Ammonium carbonate, lump	...	...	3½ oz.
Borax	...	...	½ oz.
Water	...	...	20 oz.

Potassium carbonate can replace the borax.

Setting Lotion

Potassium carbonate	...	...	2 dr.
Borax	...	...	2 dr.
Ammonium carbonate	...	...	2 dr.
Water	...	...	20 oz.

J. J. C. (4/68).—COW'S DIFFICULTY IN SWALLOWING.—The symptoms of the cow are suggestive of some affection of the mouth or associated structures. The animal's mouth should be thoroughly examined for conditions such as stomatitis, caries of the teeth, foreign bodies, malignant catarrh, suppurative conditions, actinomycosis and foot and mouth disease. If there are blisters on the tongue or palate, or shallow ulcers denoting burst blisters, the animal is probably suffering from foot and mouth disease, especially if there are also signs of lameness or the cow constantly kicks the feet as though endeavouring to dislodge something; foot lesions, however, although usual, are by no means constant. Loss of condition is almost constant in long standing cases of foot and mouth disease, which in Great Britain is a notifiable disease.

D. C. P. (13/68).—FRICTION LOTION.—The following formula will meet your requirements:—

Glycerin	...	...	8 oz.
Quinine hydrochloride	...	...	2 oz.
Saponin	...	...	½ oz.
Oil of lavender	...	...	2 oz.
Oil of bergamot	...	...	½ oz.
Geraniol (palmarosa)	...	...	2 dr.
Musk (synthetic)	...	...	½ dr.
Industrial spirit	...	...	3 gall.
Water	...	...	2 gall.

This gives an almost colourless preparation. Dry extract of quassia 1 oz. and saponin 2 dr. can be used in place of the quinine. Permission must be obtained for the use of industrial alcohol.

J. R. (20/86).—OPENING THE PORES.—For opening the pores of the scalp prior to shampooing, preparations such as the following are used:—

I			
Glycerin of borax	...	...	3j.
Industrial spirit	...	...	3xij.
Water	...	...	3viij.
Chloroform	...	...	3ij.
Ethyl phthalate	...	...	3iss.
II			
Triethanolamine	...	...	3j.
Oleic acid	...	...	3ij.
Industrial spirit	...	...	3x.
Water	...	...	3iss.
Ethyl phthalate	...	...	3ij.
Chloroform	...	...	3ij.

Permission of the Commissioners of Customs and Excise must be obtained for the use of industrial spirit. For colouring use 5ss. to 3j. of a solution of naphthol green (1 to 80).

D. L. (3/65).—LIQUID DEPILATORY.—The depilatory lotion contains sodium sulphide. There is present a small amount of dissolved sulphur which gives a yellow tint. The precipitation of the sulphur is probably caused by the addition of the perfume which has reacted with the sodium sulphide. In "Pharmaceutical Formulas" there is the following recipe for a liquid depilatory:—

Sodium sulphide	...	...	2 dr.
Distilled witch hazel water	...	...	2½ oz.

Apply by means of cotton-wool and wipe with dry cotton-wool. After two or three minutes wash the part with plenty of water and freely apply powdered starch, which can be wiped off in ten to twenty minutes.

The solution should be tested first on the arm to ascertain that it is active. It can be tinted yellow if you think it is necessary to match the tint.

H. W. J. (13/85).—HAIR GROWING POMADE.—The following formula will probably meet your requirements:—

Cantharidin	...	...	gr. j.
Acetone	...	...	3ij.
Otto of rose	...	...	3viij.
Oil of bergamot	...	...	3ss.
Benzoated lard	...	...	3viij.
Soft paraffin	...	...	3viij.
Yellow wax	...	...	3j.
Balsam of Peru	...	...	3ij.

Liquefy the wax and stir in the fats, following with the Peru balsam, and stir well to produce a cream, then add the perfume and cantharidin dissolved in the acetone.

In view of the state of the hair a good general tonic (quinine strychnine and bromide) seems to be indicated in addition to an outward application.

W. E. S. (18/68).—TAR SHAMPOO.—Your difficulty with the tar shampoo was probably due to the fact that it was badly compounded. The following is a formula which has proved satisfactory:—

Stockholm tar	...	...	3ij.
Triethanolamine (technical 80 per cent.)	...	...	3ij.
Oleic acid	...	...	3ij.
Industrial spirit	...	...	3iss.
Water	...	...	3vj.

Mix the tar, acid and spirit, slowly stir in the triethanolamine, then, also slowly and with stirring, add the water. Allow to stand 24 hours. Permission of the Commissioners of Customs and Excise must be obtained for the use of industrial spirit.

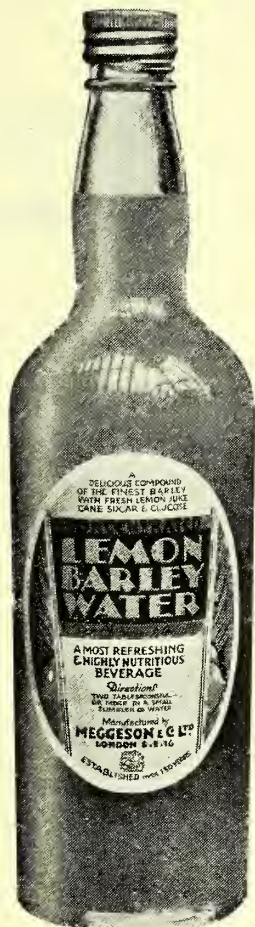
Retrospect of Fifty Years Ago

Reprinted from
"The Chemist and Druggist," June 15, 1885

A Transformation

The house was not given to change, though it could not help enlargement. Consequently, as it despaired aught but physic, the rows of bottles grew and multiplied, and on its shelves were seen, as its price list indicated, mummy and a fair assortment of vipers preserved in spirit, as well as the last additions to the art of healing. . . . In such a prehistoric pharmacy, to repaint a label, or introduce an unknown shape, or to tamper with actualities, was not to be contemplated; and the boldest held his breath for a short time. But one night, when the elders were away, a carpenter was called in; one who knew his business well. To him nothing was impossible, and he could carve letters with a hammer and chisel better than type could print. In a few hours every drawer, small and large, was altered and arranged in strict alphabetical order. The juniors worked with willing hands, and every bottle, small and large, underwent the same arrangement. So great was the advantage, so obvious and instantaneous, that the expected storm of disapproval passed over in a slight remonstrance.

for Summer Thirsts



LEMON
BARLEY
WATER

Concentrated
◦
containing
GLUCOSE

Makes a
most
refreshing,
delicious
and sustaining
beverage

RETAIL

1/9

Wholesale 15/- per doz. net.

GLUCOSE
LEMONADE
THIRST
QUENCHER

◦

Just the
thing for
tennis
parties
and outdoor
sports

RETAIL

1/-

Wholesale 7/6 per doz. net.



Chemists' Quality Preparations

made by

MEGGESON & CO. LTD.

LONDON, S.E.16

130 YEARS' REPUTATION
FOR QUALITY

TELEPHONE :
BERmondsey 1741-1742



CHLOROFORM

(DUNCAN)

CHLOROFORM—PURE

CHLOROFORM—METHYLATED

CHLOROFORM—BLUE LABEL

*All these varieties answer
the tests of the British
Pharmacopæia*

ETHER

(DUNCAN)

ANÆSTHETIC ETHER S.G. .720

ETHER B.P. S.G. .720

*These Ethers are pure, stable, and
free from decomposition
products*

**ETHYL
CHLORIDE**

(DUNCAN)

**ETHYL
BROMIDE**

(DUNCAN)

Literature and Prices
may be had on application

DUNCAN, FLOCKHART & Co.

EDINBURGH & LONDON (155 Farringdon Road, E.C.1)



PHARMACEUTICAL PREPARATIONS

(DUNCAN)

Tinctures, Concentrated Infusions,
Ointments, Pills, Capsules, Tablets,
Hypodermic Injections, etc.

ORGANO-THERAPEUTICAL PREPARATIONS

(DUNCAN)

Thyroid, Ovarian, Thymus, Pituitary,
Orchitic, Prostate, Cerebral Substance,
Suprarenal, etc.

Baumol Toilet Preparations

Toilet Soap, Vanishing, Cold
and Skin Creams, Tooth Paste,
Powder, etc.

Vaccines and Tuberculins

Prepared by the Laboratory
of the Royal College of
Physicians, Edinburgh.

Literature and Prices
may be had on application

DUNCAN, FLOCKHART & Co.

EDINBURGH & LONDON (155 Farringdon Road, E.C.1)

PLAIMAR

SANDALWOOD OIL

B.P. and French Codex
DISTILLED BY PLAIMAR LTD., PERTH, W.A.

LOOK FOR THIS SEAL—IT IS YOUR
GUARANTEE OF QUALITY



Telephone: City 4659
Telegrams & Cables: Azucena, London
Codes: A B C 5th & 6th editions,
and Bentley's 1st and 2nd editions

European Agents **MAXWELL, PLAISTOWE & Co. Limited**
22a College Hill, Cannon Street, London, E.C.4
Paris Address: Etabs, Plaistowe, 11 bis, Rue Volney

ARNFIELD'S

Raspberry Vinegar

manufactured from Pure Fruit Juice, is the best foundation for cough mixtures. It is absolutely pure and contains no preservatives or artificial flavouring agents.

Send for sample and quotation stating quantity required.

J. C. Arnfield & Sons, Ltd.

Manufacturing Chemists
Wholesale and Export Druggists

Stockport

ESTABLISHED
1786

CAMPOR
(FLOWERS, SLABS & POWDER)

LICORICE ROOT
ANATOLIAN
(WHOLE, CUTTINGS, BUNDLES and POWDER)

A. ELDER REED & CO., LTD.
Peninsular House, 28 Monument Street, London, E.C.3

Tel. No.: MANSION HOUSE 1684 (3 lines)
Tel. Add.: "Eldereed, Bilgate, London"

Ampoule Files



THE GREATEST PRODUCTION IN THE WORLD
THE BEST. THE CHEAPEST.

Prices and Samples sent on application
SIM Ltd., Morges, Switzerland

Distributors for the British Empire:
H. R. NAPP, LTD., 34 Clements Inn, London, W.C.2



BISMUTH SALTS — CITRATES
SCALE PREPARATIONS
MERCURIALS — HYPOPHOSPHITES
IODIDES — ETHERS

THOMAS TYRER & Co. Ltd.
STRATFORD E.15

Telegraphic Address : Tyremicus, Phone, London
Telephone : Maryland 2510 (3 lines)

*Lightest, Medium, Dense, for Tooth Pastes and
Tooth Powder; and other Grades for every
purpose*

PRECIPITATED CHALK

(Calc. Carb. Præcip.)

Also *Finest Powdered Talc* and other *Chalks*

A. LEVERMORE & CO. LTD.
110 Cannon Street, London, E.C.4

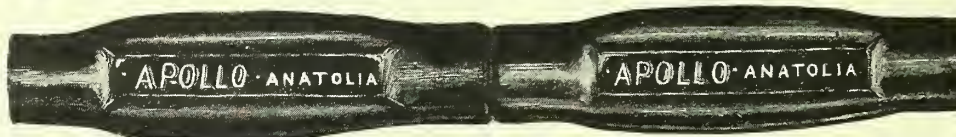
Estab. 1868. Telephone: MANSION HOUSE 7300.

Telegrams: LEVERMORE, PHONE, LONDON.

Code: "ABC 6th Edition."

• APOLLO •

PURE LIQUORICE JUICE



MACANDREWS & FORBES, LTD., BUSH HOUSE, LONDON, W.C.2
Telephone: TEMPLE BAR 5392/3 ESTABLISHED 1857 Telegrams: MACFORBES, BUSH, LONDON

"Eagle" Brand Chemicals

B.P.
**PRECIPITATED
SULPHUR**

PHOTOGRAPHIC
H Y P O

B.P.
EPSOM SALTS
B.P. GLAUBER SALT
ARSENATE OF LEAD

Enquiries Invited

JOHN RILEY & SONS, LTD.

—Chemical Manufacturers

HAPTON near BURNLEY

Telegrams: "Rileys, Hapton."

Telephones: Padham 290/8

HOPKIN & WILLIAMS Ltd.

SECOND EDITION
"ORGANIC REAGENTS
FOR METALS"

A SECOND, REVISED AND ENLARGED
EDITION OF THIS PUBLICATION DESCRIBES
THE USE OF 26 ORGANIC SUBSTANCES IN
THE DETECTION AND DETERMINATION
OF METALS

107 Pages Price 1/6 post free

16-17 Cross St., Hatton Gdn., E.C.1

A. & M. ZIMMERMANN
Petri Bros. Ltd. Proprietors

CHEMICALS
Pharmaceutical
Technical
Chlorophyll
all
Grades

CHEMICALS
ESSENTIAL OILS

COD
LIVER OIL
Medicinal
and Cattle
Marseilles Soap

**3 LLOYDS AVENUE
LONDON. E.C.3**

Specify

**ALLOIN
CHRYSAROBIN
EPHEDRIN
PODOPHYLLIN
QUININE
SANTONIN
STRYCHNINE**

Carnebro's

Brand

ACETYLSALICYLIC ACID • AMIDOPYRIN • BARBITONE
BISMUTH SALTS • CAFFEINE • EMETINE • FINE
GOA POWDER • IODIDES • JALAP RESIN • MENTHOL
PHENACETIN • PHENAZONE • PHENOBARBITONE
SALICYLATES • SCAMMONY RESIN • ETC.

FOR WHOLESALE &



EXPORT ONLY

CARNEGIE BROS. LIMITED

MANUFACTURING CHEMISTS

227-9 · ESSEX ROAD · LONDON · N · 1

PHONE: CLISSOLD 4761 (4 LINES).

'GRAMS: CARNEBROS, LONDON.

CODES: A.B.C, 6TH, BENTLEY & MARCONI

Roura & Forgas**14 Seething Lane
Gt. Tower Street
LONDON, E.C.3.**Telephone : Royal 2315-6 and 3080
Telegrams : Colleague, Fen, London**QUICKSILVER***Send your Enquiries to the***Sole Importing Buyers
for the World**

OF

MINAS de ALMADEN, MADRID

MONTE AMIATA, S.A.M., ROME

R. MINIERA Di IDRIA, TRIESTE

STABILIMENTO MINERARIO Del SIELE, LEGHORN

Chemische Fabrik
JOH. A. BENCKISER, G.m.b.H., LUDWIGSHAFEN-ON-
RHINE**TARTARIC ACID** IN POWDER
CRYSTALS and
GRANULATED

GUARANTEED IN STRICT ACCORDANCE WITH B.P.'32

ACID PYROPHOSPHATE OF SODA

Quality in all respects equal to Cream of Tartar, especially as regards stability of Baking Powder

**DRUG HOUSES OF AUSTRALIA EXPORT LIMITED
AUSTRALIA HOUSE, STRAND, W.C.2**

Sole Agents for the well-known Products of

J. BOSISTO & CO. PTY. LTD., Victoria, Australia :—

EUCALYPTOL

EUCALYPTUS OIL

EUCALYPTUS RED GUM

ENQUIRIES INVITED

TRADE
MARK

NORMACOL BRAND.

Intestinal Evacuant

is now widely prescribed
under the

**NATIONAL
HEALTH
INSURANCE**



H. R. NAPP LIMITED.
3 & 4, Clements Inn, London, W.C.2.

Telegram: "NAPPEM LONDON."

Telephone: HOLBORN 1444 (Two Lines)

ESTD



1751

WILLOWS GALENICALS

WILLOWS·FRANCIS·BUTLER & THOMPSON

LIMITED

WHOLESALE & EXPORT DRUGGISTS
MANUFACTURERS OF
PHARMACEUTICAL PREPARATIONS

Distributing Agents for

Pollantin

REGD. TRADE MARK

Specific Serum for the Treatment of

HAY FEVER

IN LIQUID, POWDER and OINTMENT FORM

Literature and Prices on request

73-75 & 89_A, SHACKLEWELL LANE,
DALSTON, LONDON, E.8.

Telegrams :
"FORTY, HACK, LONDON"

Telephone :
CLISSOLD 6361 (4 lines)

PROMPT DISPATCH GUARANTEED

If you want **BIGGEST** *dividends*



A VENO PRODUCT

invest in the
VENO PRODUCTS

If you're considering what stocks to invest in, remember this—the VENO Products are acknowledged everywhere as "gilt-edged" securities. Unfailingly, day in and day out, they will pay you handsome dividends. Eloquent testimony from thousands of users prove their efficacy; any stockist will tell you that the Veno Products are advertised consistently, sell rapidly and allow a generous margin of profit. Get details of terms and free display material. Write TO-DAY!

VENO DRUG COMPANY LTD.

for lines that PAY!

VENO DRUG COMPANY LIMITED • VENO BUILDINGS • MANCHESTER • 16

BRADY & MARTIN LIMITED

Actual Manufacturers of—
GALENICALS, MILLED OINTMENTS,
CAPSULES, PILLS, TABLETS, MALT
EXTRACTS, COD LIVER OIL EMULSIONS.

ORIGINAL MAKERS of THYROID EXTRACTS for THERAPEUTIC USE
(1891) AND MAKERS ALSO OF OTHER ENDOCRINE PREPARATIONS

The following are a few of Brady & Martin's Branded
Preparations which have a large sale:—

HEPATISAL, KRITHOL
SEPTOPHON DUSTING POWDER
SEPTOPHON CREAM
ALVOLAX GLUCO CITRAL

PROMPT SERVICE :: KEEN PRICES :: SOUND QUALITY
offered to all
PHARMACISTS OF THE NORTH

VISITS AND ENQUIRIES INVITED :: SPECIAL QUOTATIONS FOR QUANTITIES
SEASONABLE PACKED GOODS "OWN NAME"

Address all communications to:—

**NORTHUMBERLAND ROAD,
NEWCASTLE-on-TYNE**

FREQUENT MOTOR VAN
DELIVERIES TO THE TYNE,
WEAR and TEES AREA.



Telegrams: "BRAYMARTIN"
Newcastle-on-Tyne.
Telephone:
NEWCASTLE 24367 (2 lines).

KEMBALL, BISHOP

AND COMPANY LTD

MANUFACTURING

CHEMISTS

QUALITY GUARANTEED

Citric Acid
Tartaric Acid
Cream of Tartar
Rochelle Salts
Lithium Carbonate
& Hydroxide

CROWN CHEMICAL WORKS, THREE MILL LANE, BROMLEY-BY-BOW, E.3

Telephone, Advance 1234 (5 lines) • Codes, A.B.C. 6th, Dentley's, Private • Telegrams, Kemball, London

EVANS, GADD & CO., LTD.

Wholesale & Manufacturing Chemists

BRISTOL and EXETER.

Telephone : Bristol 20358, 20359.
„ Exeter 2278, 2279.

Telegrams : Gadd, Bristol.
„ Gadd, Exeter.

**LARGE
STOCKS.**

DRUGS,
GALENICALS,
PATENT
MEDICINES,

**QUICK
DESPATCH.**

*PROPRIETARY ARTICLES, SURGICAL DRESSINGS,
VETERINARY MEDICINES, ETC.*

SOUTH AFRICA

*is an Important and Growing
Market for British Products*

LENNONS,

the Old Established Chemists, cover
the whole of the Country. They have
Efficient Wholesale Facilities for In-
tensive Distribution and Distinctive
Retails in the Important Towns



Those who wish to exploit the Market
or increase their present business
should write the London Office :—

LENNON LIMITED,
12/14 LAFONE STREET,
LONDON, S.E.1

CHEMISTS KNOW WHY!

THERE is no mystery about the
reasons why chemists prefer Synthite
Formaldehyde.

They like its unvarying purity because
lack of this vital feature can quite easily
spoil their work.

They like its consistent quality because
it is a saving of both time and expense
to know that every consignment will
have the same characteristics.

They like the promptitude with which
both large and small quantities are avail-
able and the fact that although the
quality is always of the highest, the price
is never anything but reasonable.

If you would like to try Synthite
Formaldehyde, please write to us and a
generous trial supply will be forwarded
at once.

**SYNTHITE Brand
FORMALDEHYDE**

SYNTHITE
LIMITED



WEST
BROMWICH
STAFFS

London Agents:

THE BARTER TRADING CORPORATION Ltd.
14 WATERLOO PLACE, S.W.1

HALIBUT LIVER OIL

**CALCIUM
GLUCONATE**
PURISS

Fine White
Crystalline
Powder

Prepared by
Special
Process

**"BRUNSWICK"
QUININE
AND
SALTS**

Bihydrochlor.
Ethyl. Carb.
Sulphate
etc.

SUPPLIED

IN BULK
ONLY

QUANTITIES

**NORIT
UNIBAR
SYMPATOL**

**PAPAIN
SALHUMIN
CHINOSOL**

TABLETS CALBROLACT

CALCIUM BROMIDE—CALCIUM LACTATE
IN MOLECULAR COMBINATION

Bottles 50 tablets 2/-

Bottles 250 tablets 7/6

SUBJECT USUAL DISCOUNTS

CHAS. ZIMMERMANN & CO. LTD.

9/10 ST. MARY-AT-HILL, LONDON, E.C.3

Telegrams, Inland :
ACIDOLAN, BILGATE, LONDON

Telephone :
MANsion House 6005 (4 lines)

Telegrams, Foreign :
ACIDOLAN, LONDON

ALKALOIDS

FINE CHEMICALS AND OPIUM DERIVATIVES

*Goods
covered by
Dangerous Drugs
Acts offered
subject to all
regulations*

Aloin · Atropine · Bismuth Salts · Caffeine · Cantharidin
Capsicin · Chloroform · Chrysarobin · Codeine · Diamorphine
Emp. Canth. Liq. · Ephedrine · Ergotin · Eserine · Ethyl-
morphine · Gingerine · Hyoscyamine · Jalap Resin · Leptandrin
Morphine · Opium · Podophyllin Resin · Salicin · Santonin
Scammony Resin · Strychnine · Veratrine and other
Pharmaceutical Chemicals and Preparations.

T. & H. SMITH

LTD.

25 CHRISTOPHER STREET, LONDON, E.C.2

*Blandfield Works,
Edinburgh,
32-34 Virginia St.,
Glasgow*

EPSOM SALTS

*Commercial and B.P. Qualities
also Powdered*

Glauber's Salt

*Commercial and B.P. Qualities
and Desiccated*

Zinc Sulphate

Commercial and B.P. Qualities

Zinc Chloride

Fused, Granulated and Liquid

**WILLIAM
BLYTHE
& CO., LTD.**

Holland Bank Chemical Works

**CHURCH
LANCASHIRE**

**Hyposulphite
of Soda** *Pea Crystals*

Lead Arsenate
Paste and Powder

**Precipitated
Sulphur
WEED KILLER**

*A list of our general Technical
Chemicals sent on application*

WE SPECIALIZE IN
THE MANUFACTURE OF

GALLIC ACID-PYROGALLIC ACID

PURE & TECHNICAL

RESUBLIMED, PURE CRYSTAL & TECHNICAL

WHOLESALE & EXPORT ONLY. Enquiries Invited

J. L. ROSE, LIMITED, ABBEY ROAD, BARKING, ESSEX

TELEPHONE: GRANGEWOOD 0076

TELEGRAMS: "GALLIC, BARKING."

SOLAZZI LIQUORICE JUICE

should be stocked by every chemist



BECAUSE it is recognised by the leading Medical Journals as the Standard of purity in Liquorice

BECAUSE it has enjoyed an uninterrupted sale to the public for over 100 years

BECAUSE the sale is helped by steady and intelligent advertising

IT IS PRE-EMINENTLY THE CHEMISTS' BRAND OF LIQUORICE

Should any enquiry as to the composition of Solazzi be received from the public, chemists are asked to emphasise the fact that it is the pure unadulterated product of the finest Calabrian Liquorice Root, and that a guarantee is included with every parcel.

DRUGS

PHARMACEUTICAL
SPECIALITIES

PURE FOOD COLOURS

ESSENTIAL OILS

ESSENCES



BLACKWELL HAYES & Co. Ltd.

**54-58 MOOR ST.
BIRMINGHAM**

'Phone : Central 1267

Wires : Blackwelaze, Birmingham

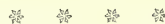
COCOA BUTTER

B.P. QUALITY

SLABS AND TABLETS



PURE COCOA POWDERS



GRANULATED RICES and RICE FLOUR

BAKING POWDER QUALITIES

A. PRESCOTT

12 BROOM LANE, BROUGHTON PARK
MANCHESTER 7

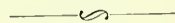
PATENT PHOSPHATES AND MERCHANDISE LIMITED

PURE RICE STARCH CRYSTALS

4/5 lb. Parcels and $\frac{1}{2}$ cwt. Cases

New Pack $\frac{1}{2}$ lb. Nett weight
Packets

$\frac{1}{2}$ cwt. Cases



PURE POWDERED RICE STARCH

6 FENNEL STREET, MANCHESTER 4

★
**GUMS
SHELLACS**

WHITE BEES WAX
JAPAN WAX
CARNAUBA WAX
CANDELILLA WAX

SHELLAC. . . .
WHITE . . .
BUTTON . . .
LEMON. . .
ORANGE . . .
GARNET . . .
GUMS. . . .
COPAL . . .
DAMAR . . .
MASTIC . . .
BENZOIN. . .
ACACIA . . .
KARAYA . . .
TRAGACANTH

In natural and in powder form.

OFFICIAL AGENTS FOR ANGELO BROS. SHELLACS

A. F. SUTER & CO., LTD.

133 FENCHURCH ST., LONDON, E.C.3.

Telephone Nos. MANSION HOUSE 0347-0348. Telegraphic Address : SUTERESIN, FEN, LONDON.

GRINDING MILLS - HACKNEY WICK, E.9.



99.90%
N₂O

ANALYSIS OF COXETER'S N₂O

Nitrous oxide - not less than 99.90%
Nitrogen - - not more than .08%
Oxygen - - not more than .02%
Carbon monoxide - - absent
Nitric oxide - - - absent
Water - - - the gas is dry to
Calcium chloride

**COXETER'S
NITROUS OXIDE**

Further details, prices, etc., obtainable from
COXETER & SON LIMITED
Manufacturers of N₂O for nearly three-quarters of a century.
In association with Condensed Gas Co. Ltd., Manchester.
171-175 PANCRAS ROAD, N.W.1

Telegrams: Coxeter, London Telephones: Euston 2456
Nitrogen, Manchester Rusholme 4771



**EXPERT SALES ORGANISATION
AND DISTRIBUTION in**

UNION OF SOUTH AFRICA

AND NORTHERN AND SOUTHERN RHODESIA

IS UNDERTAKEN BY

THE H.E.A. SMITH DISTRIBUTING Co., Ltd.

ASSOCIATED WITH

VERRINDER, LTD.

HOWARD LAMBERT (PTY.) LTD.

Distributing Agents for

Aspro	Irving's Yeast Vitamin Tablets
Andrews Liver Salts	Iron Jelloids
Condy's Fluid	Maclean Brand Stomach Powder
Crooke's "Collosol"	Maclean Peroxide Toothpaste
Halibut Liver Oil	Scrubbs' Cloudy Ammonia
Elasto	Vick Vaporub, etc.
Ephazone	Wright's Coal Tar Soap, etc.
Halmagon	etc., etc., etc.

HEAD OFFICE - 6 De Villiers St., Johannesburg

BRANCH OFFICES at Cape Town, Durban, Port Elizabeth, East London, Bloemfontein, Kimberley, Bulawayo, Salisbury and 'N'dola, etc.

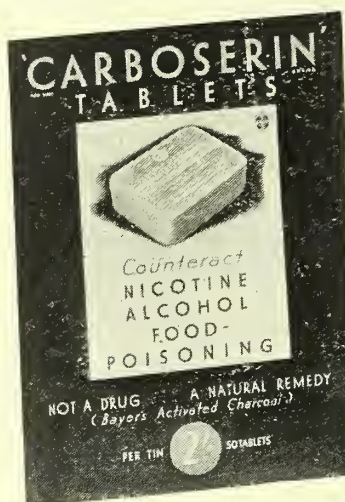
Full information from London Representative,

MAJOR H. A. GEAUSSANT
61 PALL MALL, LONDON, S.W. 1.

Telephone : WHITEHALL 5804

'CARBOSERIN' BAYER'S ACTIVATED CHARCOAL TABLETS

14 DAYS' WINDOW OR COUNTER DISPLAY TERMS

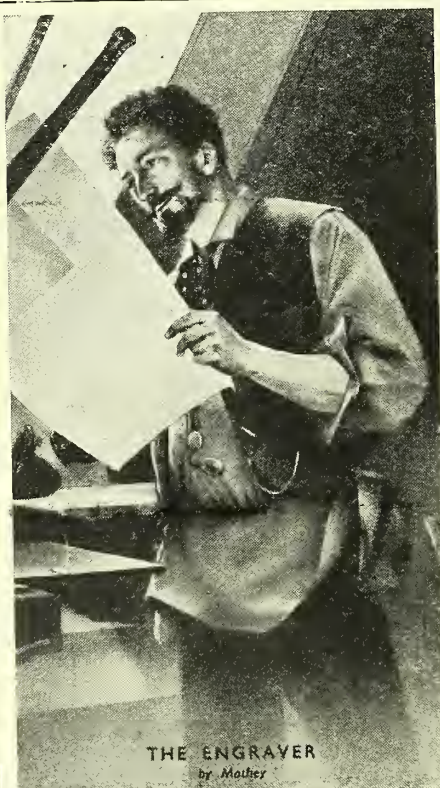


Minimum orders of 3 doz. 50 by 6 gr. (P.A.T.A. 2/- boxes) at 16/- doz. nett receive a bonus of three 2/- boxes.

This new Display set, comprising two colourful showcards and an attractive display carton is sent with every order.



BAYER PRODUCTS LTD. Africa House, Kingsway, London W.C.2



THE ENGRAVER
by Mather

We specialise

in pictorial showcards, illustrations for catalogues and provide pictures that sell your goods. As blockmakers to *The Chemist & Druggist*, we have full knowledge of the particular requirements your illustrations demand. Your enquiries will receive our immediate attention. Phone Central 9333.



JOHN SWAIN & SON LTD

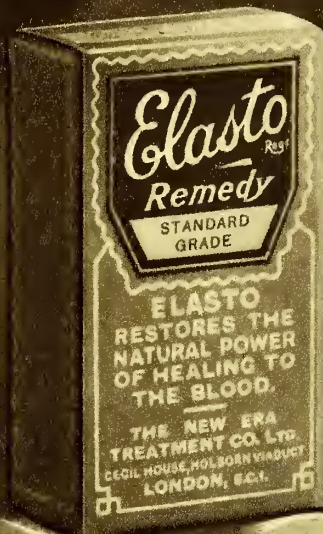
HALF-TONE + LINE + COLOUR + GRAVURE + TYPESETTING
DESIGNING + ELECTROTYPING + STEREOTYPING

89-92 SHOE LANE, LONDON, E.C.4

The World's greatest Blood Remedy

for

- VARICOSE VEINS
- VARICOSE ULCERS
- ECZEMA, PILES
- AND ALL RELAXED CONDITIONS



ELASTO

A LIVELY DEMAND EVERYWHERE FOSTERED BY CONSISTENT ADVERTISING

STILL MORE EXTENSIVE ADVERTISING NOW BEING PLANNED

Obtainable through your Wholesale House. Further particulars, show-cards, &c., from the proprietors.

Day by day—year by year—people throughout the country see Elasto advertising. Every week shows bigger sales. Thousands of chemists, realising that Elasto is a non-competitive line, are recommending this highly successful product to all customers suffering from Varicose Veins, Bad Leg and all circulatory disorders, and doing a brisk repeat business. Our large scale advertising will move your stock with greater speed if you will show Elasto on your counter or in your window. Take your share of this better class trade now!

SHOW ELASTO — IT SELLS ON SIGHT!

RETAIL 5/- PER BOX
(One Month's Supply)

WHOLESALE 45/- A DOZ. P.A.T.A.

THE NEW ERA TREATMENT Co. Ltd.,
(DEPT. C.D.), CECIL HOUSE, HOLBORN VIADUCT, LONDON, E.C.1

Harris, Hart

for superlative quality



Glauber
Salts. B.P.



Epsom
Salts. B.P.

*Special Types of crystals matched and any
degree of exsiccation to order*

PACKED FOR HOME OR EXPORT

May we quote you?

HARRIS, HART & CO. LTD.

MOSS HOUSE CHEMICAL WORKS,
BLACKLEY, MANCHESTER

Phone : Cheetham Hill 2853

Grams : HARP, Blackley, Manchester

...reconstruction at Woolley's



A seasonable and profitable line displayed in the New Showrooms

Extensive advertising is combining with the best publicity of all—recommendation—to make NURONA a bigger success than ever this year. See to your stocks right away.



NURONA
Sun Tan Cream
encourages rapid tanning,
prevents sun burn.

Take a peep into the new Woolley showrooms at Victoria Bridge—spacious and modern, displaying every need of the Pharmacist—drugs, galenicals, toiletries, gifts, etc., with the utmost visibility.

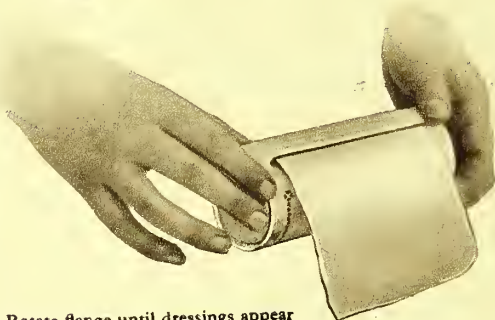
You are cordially invited to see for yourself the dignity and completeness of this new Woolley service.

JAMES WOOLLEY SONS & CO. LTD.
VICTORIA BRIDGE - MANCHESTER 3

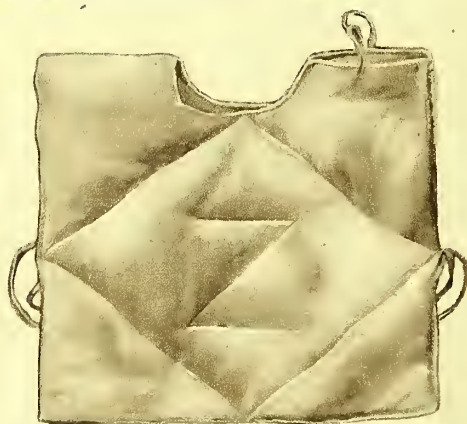
CONTRACTORS TO THE WAR OFFICE, L.C.C., CROWN AGENTS, &c. &c.

OUR MANUFACTURES
CAN BE INSPECTED
IN THE MEDICAL SEC-
TION OF BRITISH
INDUSTRIES HOUSE,
LONDON

FOR ANY of YOUR REQUIREMENTS
IN **SURGICAL DRESSINGS**,
WRITE US FOR QUOTATIONS

Steraid Series of Surgical
Gauzes and Lints

Rotate flange until dressings appear



Zorbo Pneumonia Jackets

"Steraid" "Zorbo" and "Sanibin" are Registered Trade Marks

GUARANTEED BRITISH MANUFACTURE

Enquiries are invited from Hospitals,
Government Institutions, Surgical
Supply Houses, Wholesale Drug
Houses and Industrial Organizations
throughout the world for any of the
following manufactures :

Absorbent Cotton Wool
Non-Absorbent Wool
Medicated Wool
Bacteriological Wools
Absorbent Gauze
Absorbent Gauze Sponges
Medicated Gauzes
Bandages (all classes)
Bandage Rolls
Absorbent Gauze Tissue
Cellulose
Adhesive Plaster
Surgical Lint
Dressing Rolls
Sanitary Towels
Maternity Pads
Accouchement Outfits
Cynta Towelines
Steraid Plain Gauze
Steraid Plain and Boric Lint
Zorbo Pneumonia Jackets
Zorbo Joint Jackets
Zorbo Long Staple Wool
Sanibin Dressing Receptacle

AGENTS IN ALL PARTS OF THE WORLD

WHOLESALE AND EXPORT ONLY

ROBERT BAILEY & SON, Ltd.

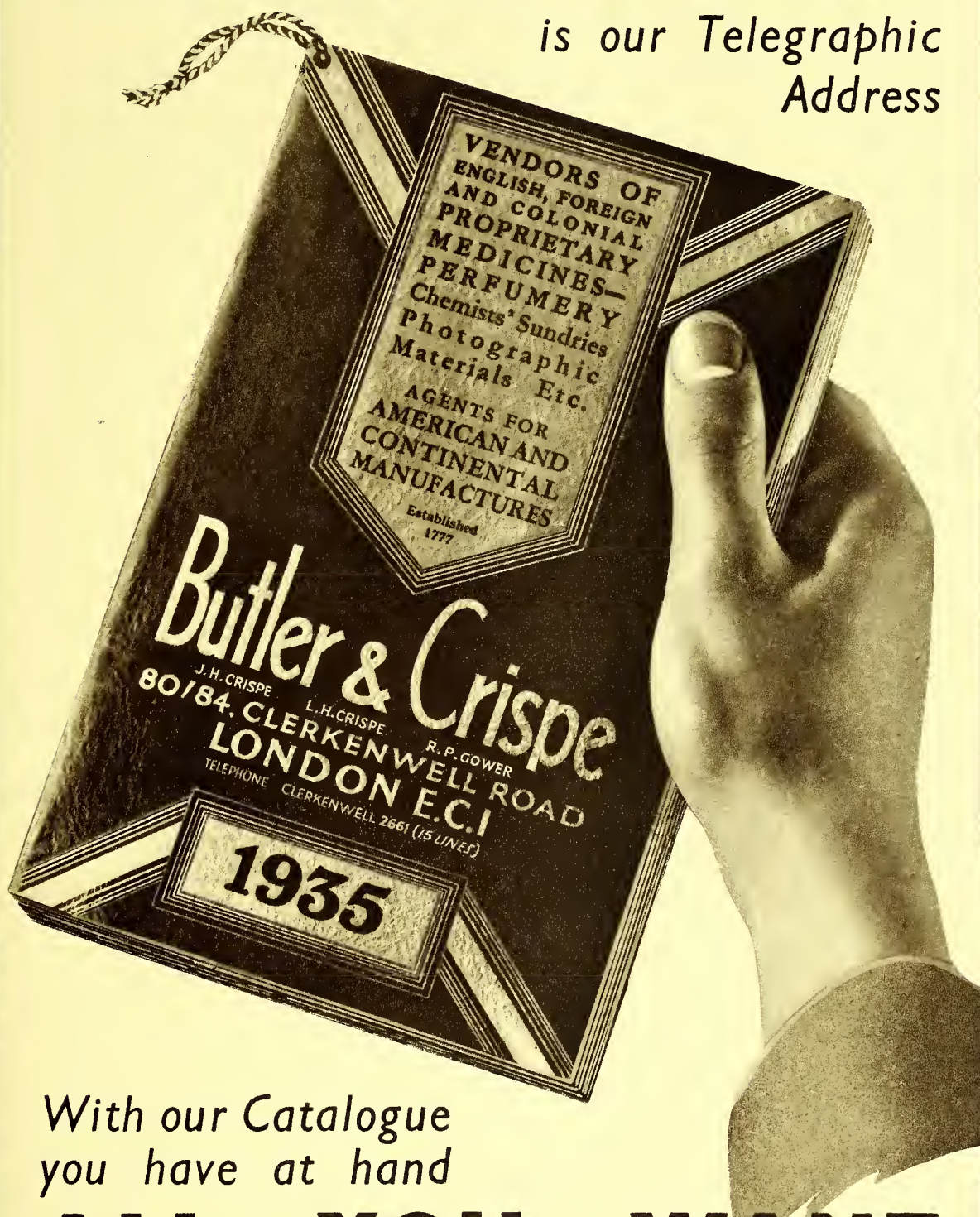
SURGICAL DRESSING MANUFACTURERS

Dysart Street Mills, Great Moor, Stockport, Cheshire
Phone : 3006 Great Moor (2 lines). Grams : " Undisputed, Stockport "

Sentinel House, Southampton Row, London, W.C.1
Phone : HOLborn 9200. Grams : " Undisputed, Ofservis, Westcent, London "

“ALLUWANT, LONDON”

is our Telegraphic
Address



With our Catalogue
you have at hand

ALL YOU WANT

with the finest service behind it

Bakelite Materials in the service of the Pharmacist



The use of Bakelite Moulded Containers for toilet and cosmetic preparations is of two-fold interest to the modern Pharmacist. Distinctive and colourful caps and containers make for quicker sales and turnover. The contents of such containers remain fresh and in first-class condition, thus reducing stock depreciation. A copy of our leaflet—"Bakelite Moulding Materials for Modern Packaging" will be sent to you at your request, and we shall be pleased to supply you with the names and addresses of moulders of caps and containers.

BAKELITE
Registered Trade Marks
TREPAIL
BAKELITE LIMITED

Works, Birmingham, Est. 1910 68 Victoria Street, London, S.W.1 Telephone: Victoria 5441 (4 lines)

Jaytee's HUILE d'OLIVE

**FINEST
QUALITY**

**GUARANTEED
PURE**

The Aristocrat of Olive Oils

ELEGANTLY PACKED
A PROFITABLE LINE, WORTHY
OF THE ATTENTION OF
DISCRIMINATING BUYERS
FREE DISPLAY STAND WITH ORDERS OF
3 dozen ASSORTED SIZES

RETAIL 9d. 1/3 2/3 4/- per bottle
6/6 9/9 17/- 31/- per dozen

**SPECIAL TERMS FOR
GROSS QUANTITIES**

**SPECIALY
FOR MEDICINAL USE ALSO SALADS Etc.
PREPARED**

LAVILLE'S TOILET ELIMINATE STORE SPECIALITIES COMPETITION

A NEW RANGE OF SUPERIOR TOILET
PREPARATIONS RESERVED EXCLUSIVELY
FOR PHARMACISTS
ATTRACTIVE PACKINGS IN 2 OZ. Dainty
WHITE FLINT, WITH BAKELITE CAPS

Bay Rum, Bay Rum & Cantharidine
Brilliantine, Coconut Oil Shampoo
Glycerine & Rose Water, Glycerine & Cucumber
Hair Cream (Non-Greasy) Hair Cream (with Oil)
Hair Setting Lotion, Pine Shampoo
Sea Foam Dry Shampoo
Sunburn Lotion, Sun-Tan Oil
Toilet Paraffin, Violet Oil

RETAIL 6d.
DOZ. 4/-
GROSS 45/-

SUN-TAN CREAM
A popular and fast
selling SUMMER LINE
PACKED IN TUBES
3/9d. per doz.
42/- per gross

THESE MODERN PACKS
MAKE HANDSOME DISPLAY
NEAT AND ATTRACTIVE
SHOWCARDS WITH
EACH ORDER



SUN-TAN OIL PRODUCES
THAT SUNSHINE TAN COMPLEXION

ABOVE TOILET LINES ARE ALSO PACKED IN 4 OZ. SIZE RETAIL AT 1/- DOZ. 6/6 GROSS 72/-

JOHN THOMPSON LTD.

27-35 DUKE STREET · LIVERPOOL

PLAISTERS

Mather's Zinc Oxide Adhesive Plaster is a quality product with a universal reputation.

The Medical Profession and the general public appreciate the new patent handy spool which ensures a perfect plaster whenever required. Handy to use and neat in appearance it is worthy of your recommendation, because it is a popular favourite wherever introduced, and it shows good profits.



This is one of our most successful lines. The colourful display card is a real silent salesman. The pack is definitely attractive. You can order from your usual wholesaler or ask us for full details.

A sample tin will gladly be sent on application.



There is a much larger trade to be done in Porous Plasters than is already imagined. The secret is an attractive display. Our new registered Display Box is undoubtedly the last word in Plaster containers. It sells them with the greatest of ease. Put a box on your counter and watch how quickly they sell. We manufacture every variety of porous plaster and pack them all in this style of container. Your wholesaler stocks them.

"WILMATH" ELASTIC BANDAGES are unsurpassed.

ASK FOR SAMPLES AND PRICES

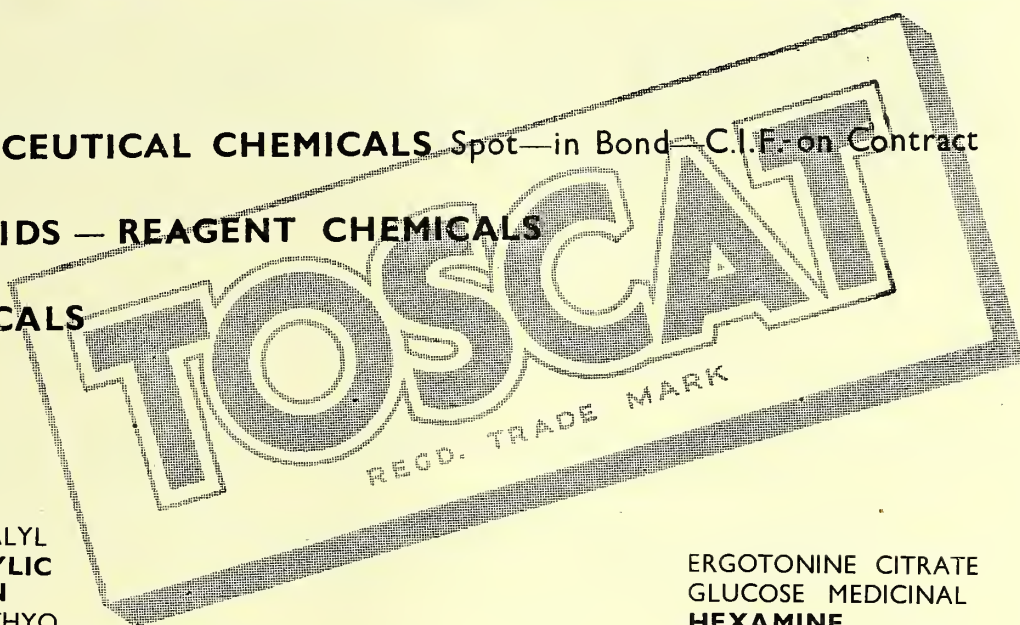
WILLIAM MATHER LTD

DYER STREET, MANCHESTER 15, ENGLAND

PHARMACEUTICAL CHEMICALS Spot—in Bond—C.I.F. on Contract

ALKALOIDS — REAGENT CHEMICALS

BOTANICALS



acid ACETOCALYL
ACID SALICYLIC
AMIDOPYRIN
 AMMON ICHTHYO
 SULPHONATE

AMMONIUM CHLORIDE

ATROPINE SULPHATE

BARBITONE

BARBITONE SOLUBLE

BISMUTH CARBONATE

BROMIDES

BROM ISO VALERYL UREA

BROM DIETHY VALERYL
 UREA

CACODYLATES

CAFFEIN PURE**CHOLESTEROL**

CALOMEL

CITRATES

CORROSIVE SUBLIMATE

CHLORAL HYDRATE

DIGITOXIN

EPHEDRIN Hydrochlor

ERGOTONINE CITRATE

GLUCOSE MEDICINAL

HEXAMINE

HYDROQUINONE

POTASSIUM IODIDE**QUININE SALTS**

QUINOPHAN

QUASSINE

SODIUM SALICYLATE**SALOL**

SILVER COLLOIDAL

TERPIN-HYDRATE

UREA**MAGNESIUM PEROXIDE (25%)****IPECAC RIO METAGROSSO****CASSIA FISTULA****CHAUL MOUGRA OIL (T.K.)****VANILLIN****CAMPHOR FLOWERS B.P.****CANTHARIDES (Russian)****EUPHORBIA****JAMBUL SEEDS****ISO-PROPYL ALCOHOL****ETHYL VANILLIN****AMERICAN ESSENTIAL AND EXPRESSED OILS**

Distilled by Magnus, Mabee & Reynard, Inc., New York.

TURTLE OIL EXPRESSEDTHE NEW BASE FOR COSMETIC CREAMS
 (For immediate delivery from Stock)**AVOCADO PEAR OIL,****GRAPE FRUIT OIL (Expressed), Peppermint Oil (Mowhawk Brand)**Natural and Re-distilled, Sassafras Natural, Spearmint, Wormseed,
 Balsams of Capaiba, Peru, Tolu.

THE

**OLD STRAND CHEMICAL & DRUG CO. LTD.**Managing Director: **HERBERT A. BERENS, B.A. (Cantab.), F.C.S.****AUDREY HOUSE, ELY PLACE, LONDON, E.C.1**

TELEPHONE: HOLBORN 6093 (two lines)

TELEGRAMS: OLSTRANKEM, PHONE, LONDON

Tablets and Pills Packed or Bulk

ASPIRIN
CASCARA

and all

TABLETS and PILLS

Latest Automatic Pill Plant
producing over 300,000
3-grain pills a day.

Private formulæ Pills and
Tablets carefully and ac-
curately prepared at lowest
possible prices.

Enquiries from Packers, Shippers & Trade
CASTLE HUSKISSON Ltd.

MANUFACTURING CHEMISTS

Swinton Works, Moon St., Islington

ESTABLISHED 1768

AGENTS FOR MÖVA PRODUCTS LTD.

Specialists in

PILLS AND TABLETS IN BULK

Special Formulæ problems a feature

Private Formulæ made up

Wholesale only

Special Terms to Packers and Proprietors of Branded Lines.

THE TOWER PILL & TABLET CO., LTD.

46 Penton Street, London, N.1

Telephone :
TERMINUS 6562



**THE HOUSE
FOR
PILLS**

TABLETS & CAPSULES

ANY QUANTITY, PACKED OR IN BULK

~~~~~  
EXPORT ENQUIRIES SOLICITED  
~~~~~

HOWARD LLOYD & Co. Ltd.,
ASFORDBY STREET WORKS,
LEICESTER

Steam Distilled

Pine Oil

/// Specially suitable for spray disinfectants on account of its emulsifying, deodorant and germicidal properties having a phenol coefficient of 4—5.

Avocado Oil

/// A vegetable oil. Rich in Vitamins A D and E and having high penetrating power equal to finest lanoline.

Turtle Oil

/// Expressed Refined.
Specially processed and deodorised for the Cosmetic Trade.
Cheaper grades also supplied.

Wholesale Trade only supplied

MORELAND & CO.
4 Lloyd's Av., London, E.C. 3

Telephone : Royal 8827
and at the Baltic Exchange

MATTHEWS & WILSON (1931) LTD.

ESTABLISHED 1894

MANUFACTURING CHEMISTS TABLETS (SILVER COATING), PILLS (OVOID OR ROUND), LOZENGES

Manufactured under the control of qualified analytical and pharmaceutical chemists.
IN BULK—ATTRACTIVELY PACKED—OWN NAME SERVICE.
SPECIALISTS IN THE MANUFACTURE OF PRIVATE FORMULÆ IN ANY COATING OR SHAPE. SATISFACTION GUARANTEED.
EXPORT ENQUIRIES SOLICITED.

Manufacturers and Distributors of

"LECTONA" TONIC FOOD AND "OXYDOIN" PREPARATIONS.

6 AND 8, COLE
PHONE : HOP 6610-1

STREET, LONDON, S.E.1
GRAMS, PILLEOLUM, SEDIST, LONDON

COMPRESSED TABLETS

COATED or UNCOATED

STANDARD or
PRIVATE FORMULÆ

WHOLESALE BUYERS
WRITE

T. H. WALTON & Co. Ltd.
BATLEY

TABLETS

COMPRESSED

Packed or in Bulk

Specialists for over 30
years in all kinds of
medicinal tablets. Purity
of Drugs and accuracy
of dosage guaranteed.
Let us put up your own
speciality in Tablet Form.
Secrecy of Formula
guaranteed

BUCKLEY-BOWKER TABLET Co. Ltd.
29 PARKFIELD STREET, ISLINGTON, N.1



SOL-VO

REGD

TOILET PAPER

PURE - SOFT - HYGIENIC
(Completely Wrapped)

SELLING AIDS.

A display Showcard and "Personal Hygiene" leaflets with every order.

750 perforations to every roll.

No dirty edges, completely wrapped and sealed.

3 Doz. @ 6/- Doz. 6 Doz. @ 5/9 Doz. 12 Doz. @ 5/3 Doz.
CARRIAGE PAID-NET



FORD, SHAPLAND & CO. LTD.

PRINTERS & WHOLESALE STATIONERS,

GREAT TURNSTILE, HIGH HOLBORN, LONDON, W.C.1

Telephone: HOLBORN 4695.

The World's best-seller for Varicose Veins

"Academic" REGD
SURGICAL HOSE

NOW MADE WITH THE FAMOUS
"LASTEX" YARN

AS WELL AS WITH RUBBERLESS COTTON YARN AS BEFORE

FOR PARTICULARS AND TRADE TERMS WRITE TO MANUFACTURERS
"ACADEMIC" DEPOT, 156-162, OXFORD ST., LONDON, W.1

TELEPH: MUSEUM 6313

TELEG: EORGENLIBI, LONDON

FIVEPOINT

HYPODERMIC SYRINGES & NEEDLES

FIVEPOINT SYRINGES ARE

- 1 Annealed to stand high sterilization
- 2 Pistons a precision fit
- 3 Joints are hermetically sealed
- 4 Calibrations are accurate
- 5 British

*Original-Records and Two-piece glass syringes
All sizes and graduations*

GENERAL SURGICAL CO., LTD.
Gensurco House, Rosebery Av., LONDON, E.C.1
Phone: Clerk. 6046

MENE

Advertised from January to December and never fails to give satisfaction. Also **SU-CAN Soluble** for instant disposal.

From your Wholesale House, please.

ROBINSON & SONS LTD. CHESTERFIELD & LONDON

THOMAS HANCOCK



Founded the Rubber Manufacturing Industry

Long experience, combined with modern manufacturing methods, continue to make

HANCOCK'S THE HALL-MARK OF QUALITY

Chemists and Druggists can be certain when supplying Hancock's goods that they are securing a satisfied customer. 115 years of experience in the rubber manufacturing industry is behind each article. Courteous and individual attention is assured. Makers of

RED CIRCULAR AIR CUSHIONS, HAND-MADE AND MOULDED HOT WATER BOTTLES, BED SHEETING, DRAINAGE TUBING and GENERAL RUBBER SURGICAL GOODS

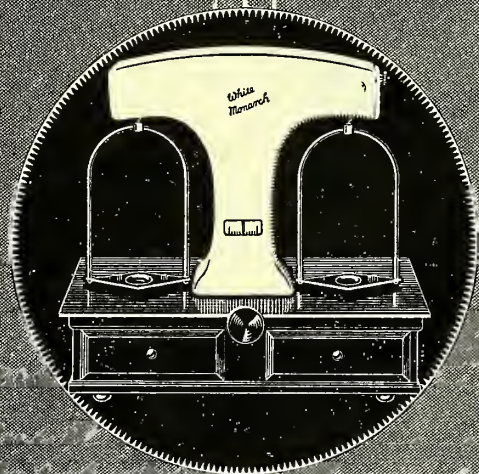
Please write for name of stockist to:

JAMES LYNE HANCOCK, LTD.

266 Goswell Road, London, E.C.1
The first rubber factory in the world.

Clerkenwell 4410-4412

Founded 1820 Masticator, Isling, London



Your Dispensary
deserves the most
modern equipment

INSTALL THE NEW ENCLOSED BALANCE

WHITE MONARCH

REGISTERED TRADE MARK

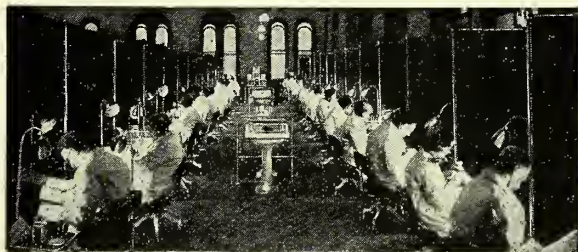
COMPLETELY PROTECTED FROM DAMAGE BY
DUST OR FUMES, BY THE WHITE ENAMELLED
HOUSING. CLEANED IN A MOMENT, NOT EASILY
KNOCKED OVER.

Ask your
Sundries
House
to show
you one

Strongly constructed to withstand hard usage
without impairing its sensitivity

STAINLESS STEEL & CHROMIUM PLATED FITTINGS.
ALTERNATIVE MODELS AVAILABLE

WILLIAM A. WEBB Ltd. 4/5 SKINNER ST., LONDON, E.C.



A Section of Foot Clinic

CHIROPODY

Our London and Manchester Foot Hospitals treat over 2,000 cases weekly—each student treats a minimum of 500 patients during the term.

Chemists who have opened Chiropody Departments have widened the scope of their business and brought in many new customers, increasing turnover in all sections. Many have equipped their sons or daughters for dignified and profitable careers as qualified Chiropodists, through the four months' full intensive training Course at this School, the largest and most up-to-date in Europe. Exclusively connected with Foot Hospitals, treating over a quarter of a million patients annually, affording unrivalled opportunities for practical training.

New Term starting shortly.

Write for Prospectus

Dept. 90, National School of Chiropody
133 Upper Street, Islington, London, N.1
or to Dept. 90, 28 Bury New Road, Strangeways, MANCHESTER

THE

"MATER"

CLINICAL REGD.

The position of the Mercury column is at once perfectly plain. Red markings above 99.4.

ALL TYPES OF CLINICAL AND OTHER THERMOMETERS

PERKEN, SON & CO. LTD.

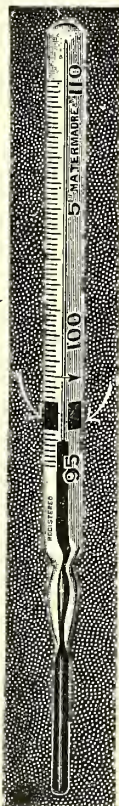
(ESTABLISHED 1852)

Price List on Application:—

94 HATTON GARDEN,
LONDON, E.C.1

Telephone: 0724 Holborn

Telegrams: "Optimus, Smith, London."





ZEAL

-the name that
guarantees
accuracy
in



● EXPERT SUPERVISION

● GUARANTEED ACCURACY

HOUSEHOLD
THERMOMETERS

RAPID REGISTRATION ●

PROMPT DELIVERY ●

INDUSTRIAL
THERMOMETERS

CLINICAL THERMOMETERS

THE REPELLO
Regd.

No shaking down required



Showing flattened
bulb at end.

The finest Clinical Ther-
mometer ever produced

Imitations are dangerous

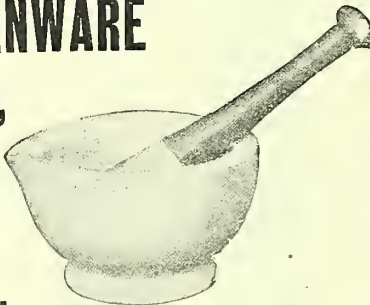
G. H. ZEAL LTD., Morden Road, Merton, London, S.W. 19

Tel. No.: Liberty 2283 (3 lines) Cables: "Zeal-dom, London!"

Specialists since 1763 in

CHEMISTS', DRUGGISTS' & HOSPITAL EARTHENWARE

**BED PANS,
URINALS,
INHALERS,
FEEDING
CUPS, ETC.**



*We are prepared to quote for Pots and Jars for
special requirements.*

JOHN LOCKETT & CO.
LONGTON
STAFFORDSHIRE, ENGLAND.



Why prepare 6 wet dressings?

ONE MEDILINTEX^{BRAND} POULTICE WILL DO THE WORK

Why go to all the bother of boiling kettles and changing poultices when ONE Medilintex dressing will remain effective for 24 hours? Medilintex has replaced the old-fashioned wet-dressing—and is much more effective. It requires little or no preparation and relieves pain with remarkable rapidity. It never sticks to an open wound. Medilintex draws out all pus and poisons and is absolutely aseptic and emollient. Use this modern dressing whenever a poultice is needed. At all chemists. In two sizes, 1/- and 1/9, and 1/2 yard and 1 yard rolls at 3/6 and 6/6.

Special rates to the profession on application.

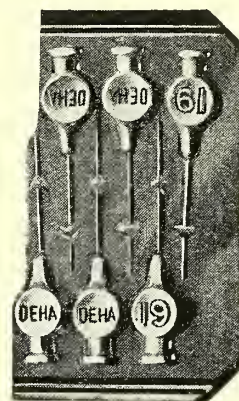
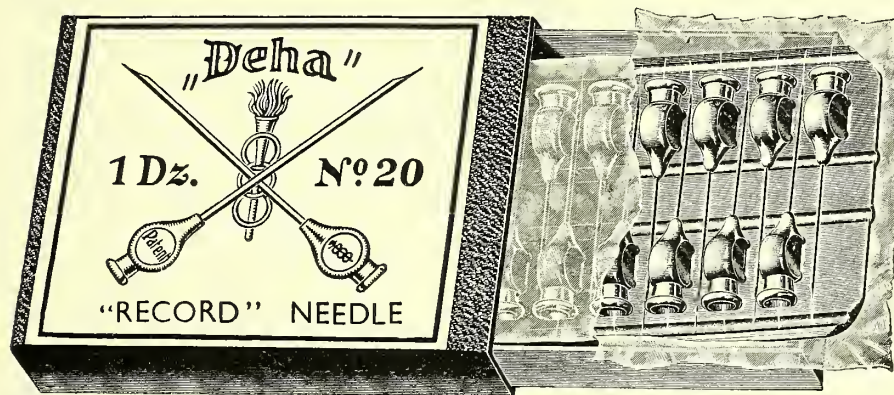
ROBINSON & SONS, LTD.,
Wheat Bridge Mills, Chesterfield. 168 Old Street, London, E.C.1

INJECTA (LONDON) LIMITED

ACTUAL MANUFACTURERS OF SURGICAL AND DENTAL SYRINGES,
NEEDLES, and Suppliers of GENERAL SURGICAL INSTRUMENTS, both in
BRITISH and FOREIGN

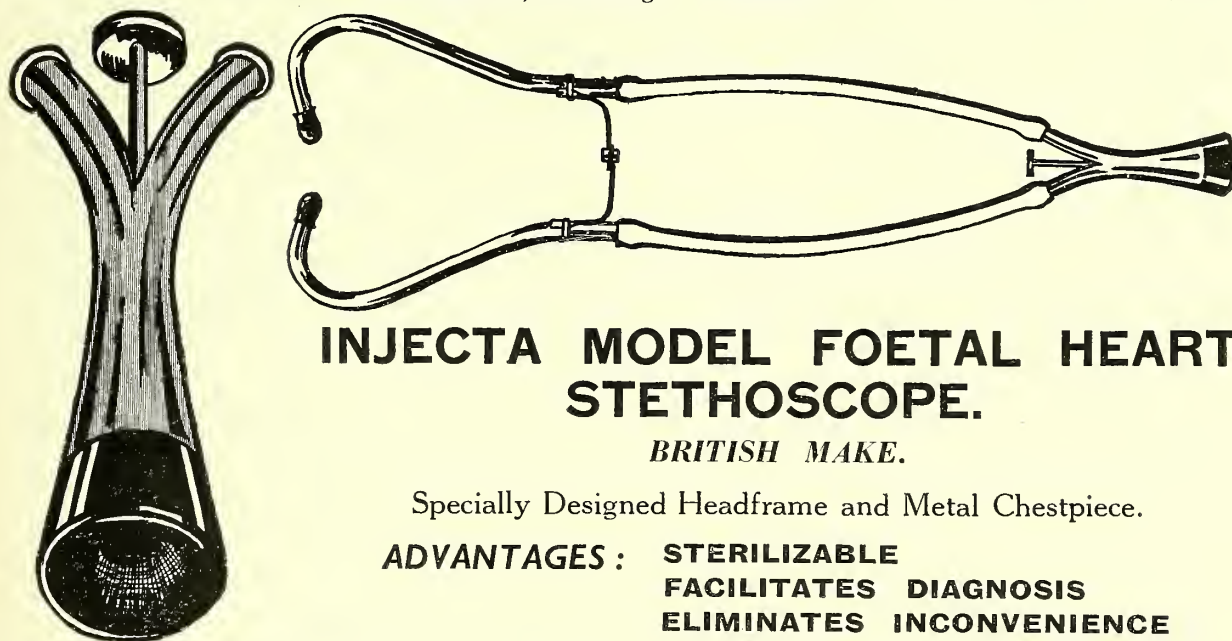
STRICTLY WHOLESALE AND EXPORT

Order the **ORIGINAL PATENT DEHA NEEDLE**
and **SECURE** a Needle of **PERFECTION.**



FOREIGN

Original DEHA RECORD NEEDLES, Patent No. 333420, made in Steel or Stainless. The only Original Pattern with the Size Number moulded into the Needle Mount. No searching or measuring necessary to ascertain the gauge and length of needle. The Concave Fingergrip Mount enables the needle to be easily held and securely fitted to the syringe nozzle. Each needle is fixed into the mount, rendering it unbreakable.



INJECTA MODEL FOETAL HEART STETHOSCOPE.

BRITISH MAKE.

Specially Designed Headframe and Metal Chestpiece.

ADVANTAGES : **STERILIZABLE**
FACILITATES DIAGNOSIS
ELIMINATES INCONVENIENCE

AUDREY HOUSE, ELY PLACE, LONDON, E.C.1

Telegrams: INJECTALIM, SMITH, LONDON.

Telephone: HOLBORN 0336.

ANNOUNCEMENT

MESSRS. ARTHUR BERTON LTD.
have pleasure in advising their many
Pharmaceutical and Hospital friends
that they are now able to supply all
SURGICAL DRESSING requirements
direct from their LONDON MILLS.

REVISED PRICES with a supply of PRE-
PAID MAIL ORDER FORMS willingly
sent to customers upon application.

ARTHUR BERTON Ltd.

BRITANNIA HOUSE
256-260 OLD STREET
LONDON - E.C.1

SHOWROOM:

80 REGENT ARCADE HOUSE
OXFORD CIRCUS, W.1

WORKS:

NEW RIVER MILL
WILLESSEN

EXTRACTS

TINCTURES · RESINOIDS
OLEO-RESINS · MEDICINAL RESINS



English Oil of
Lavender Camomile
From plants grown on our own farms

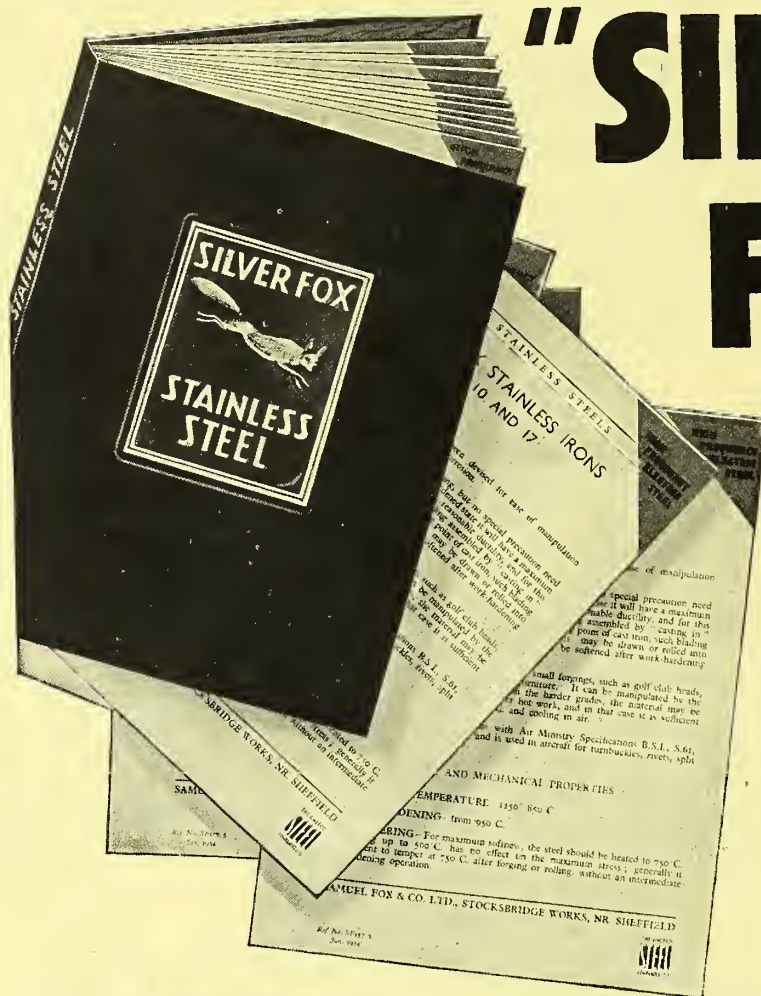
Cultivators of
Belladonna and Henbane

ATROPA BELLADONNA HYOSCYAMUS NIGER ANTHEMIS NOBILIS LAVANDULA VERA

POWDERED DIGITALIS
PREPARED ERGOT
POWDERED BELLADONNA
SOLID AND LIQUID
MEDICINAL PREPARATIONS

WILLIAM RANSOM & SON,
ESTABLISHED 1846 LTD
Manufacturing Chemists
HITCHIN NEAR LONDON

WHOLESALE ONLY



"SILVER FOX"

A NEW SERIES OF MODERN STAINLESS STEELS



**SAMUEL FOX
& CO. LTD.**

*Associated with
The United Steel Companies Limited*

**STOCKSBRIDGE
SHEFFIELD**

THIS CATALOGUE OF FACTS—
about "Silver Fox" Stainless Steels has been compiled essentially to help users of stainless steels to choose the right quality for their own particular needs.

Each steel is described separately and information is given about the uses to which it may be applied.

Notes on soldering, brazing and welding are also included.

"Silver Fox" Stainless Steels are obtainable in the following forms:—

WIRE, STRIP, SHEETS, BAR, PLATES.

WRITE FOR A COPY

of the new Catalogue to the Publicity Department,
The United Steel Companies Ltd., 17 Westbourne
Road, Sheffield 10, giving your name, name and
address of firm, and your position with firm.

**THE UNITED
STEEL
COMPANIES LTD**

There's many a Slip—

—and speaking of Slip Labels, isn't it surprising how they vary both in quality and in price?

At some time or other, most chemists have come across the indifferently printed sort—the kind that *will* stick together in a solid bunch just when they are urgently required—but there are other and better kinds and these are the ones in which we are particularly interested.

Your label is a standing advertisement in the homes of your customers, and it therefore warrants your most careful thought in its selection.

If you want a really clean and neatly designed label—dispensing or slip—one that will not curl up in your label drawer—one that will reflect credit on your establishment—trouble-free and yet inexpensive—we suggest that you cannot do better than ask us to submit samples and prices.

Delivery can be given in 10/14 days.

As printers of repute for 30 years with modern and well-equipped works, we also specialise in catalogues and brochures—both letterpress and photo-litho—and can offer you an efficient and entirely satisfactory service.

STEEL, ADAMS & Co.

LETTERPRESS AND ROTARY OFFSET PRINTERS

Gaythorn Works

JORDAN STREET - MANCHESTER, 15

SUMMER-TIME DEMAND for CEPHOS



These attractive display materials
make many sales

Seen in your windows and on your counters they act as a constant reminder to those who see the Cephos advertisements in their daily and evening newspapers and in the leading women's magazines and other publications.

Dignified in design they are a fitting reminder of the quality of Cephos—"The prescription of an eminent Harley Street Physician."

We shall be pleased to forward to you all or any of these display pieces upon request.

IN POWDERS
OR TABLETS

Retail Price
1/3 & 3/-

Single Powders
2d. each

Cephos
Pronounced See-foss
REGD
THE
PHYSICIAN'S
REMEDY

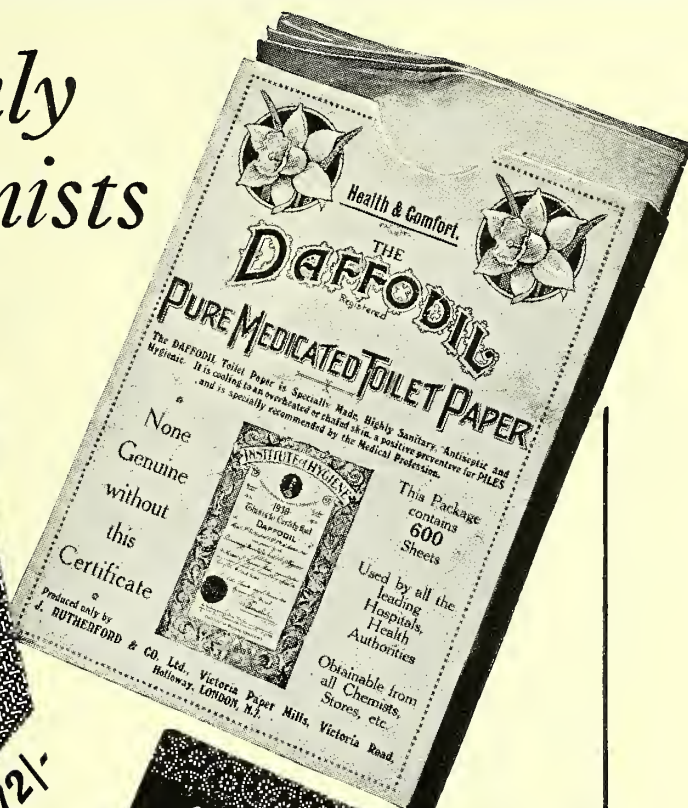
Cephos Ltd., Blackburn

FOR
HEADACHE
NEURALGIA
COLDS & CHILLS
RHEUMATISM
LUMBAGO
SCIATICA

Obtainable only from Chemists



BRITISH
MADE
Pure White Sulphite



BRITISH
MADE
Pure Manilla

Packed in half gross cartons free

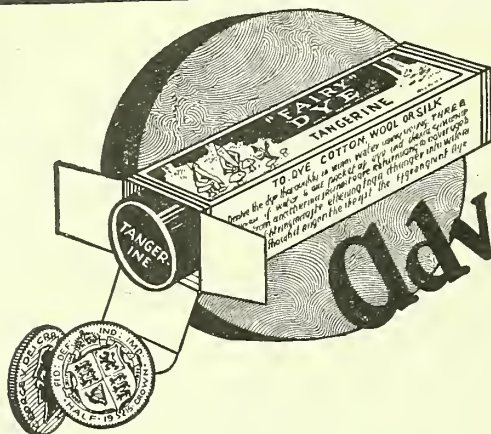
All orders carriage paid.

Showcards and free samples
on application.

Awarded the Certificate of
the Institute of Hygiene for
PURITY.

J. RUTHERFORD & Co. Ltd.

Victoria Paper Mills, Victoria Road, Holloway, London, N.7



Advertised goods yield quick profits

FAIRY DYES

are big sellers—always in popular demand. They mean quick turnover and liberal profits. Fairy Dyes are forging steadily ahead and you should periodically inspect your stocks.

Retailed at 2d. per tube—attractively packed. 31 shades and colours.

Be wise—stock

Fairy Dyes

LONDON DEPOT:
292 UPPER ST.,
ISLINGTON - N. 1

FAIRY DYES, LTD., GLASGOW. N.W.

"MOSANS" Non-Greasy, Odourless QUININE PESSARIES



15/-
per dozen
boxes

ORDER THROUGH ANY WHOLESALER
or from
MOSANS LABORATORIES,
15 Elmcourt Road, S.E.27

Harry Foot,

66 HANOVER ST., LIVERPOOL 1
Telephone No.: ROYAL 202.

Begs to state the old time Brands are still to the front, Belle of the Ball, Pink Domino, Security, Solo, Nap, Red Cross, LATEX, DEBOI Paragons, Highland Pine.

Prices and Samples on application.

Forster's Eldon Vapouriser
FOR USE WITH NIGHT LIGHT
Retail, 1/9. Wholesale, 15/-.
Also Forster's "Epinol Fluid" For Whooping Cough
Write for particulars
HALL, FORSTER & CO., Ltd., Newcastle-on-Tyne

KUTTEIL

*The Vest Pocket
First-Aid Ointment*

For Cuts, Wounds and Sores of Every Description.
Instantly Stops Bleeding. Relieves Soreness.
In Screw-capped bottles, complete with brush,
9d. per bottle. Double size 1/3

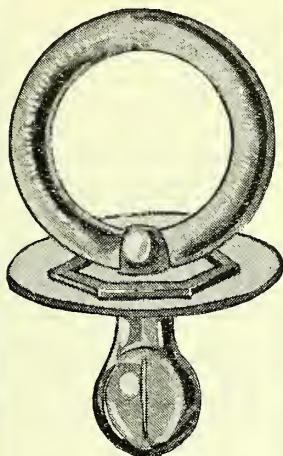
SELLS AT SIGHT

Price: 6/- per card, containing one dozen neatly cartoned bottles.

Thornton Pharmaceutical Laboratories
LIMITED
THORNTON, BLACKPOOL

INGRAM'S "OMEGA" SOOTHER

Fitted with Patent Strengthened Shield



(Pat. No. 429327)

MADE IN TWO SIZES
LARGE AND SMALL
WITH STRAIGHT OR
CHERRY TEAT

Put up in Hygienic
Cartons, one dozen in
a display box.

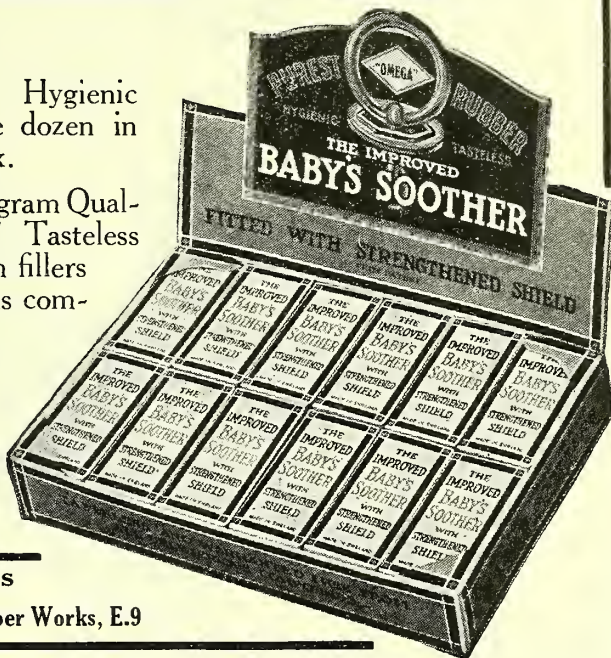
Made of "Ingram Qual-
ity Rubber." Tasteless
and free from fillers
or deleterious com-
pounds.

RETAIL
P.A.T.A.
PRICES

Large 5½d.

Small 5d.

EACH



FROM ALL WHOLESALE HOUSES

J. G. INGRAM & SON LTD. London Rubber Works, E.9

DISPLAY THE



VIC Regd.

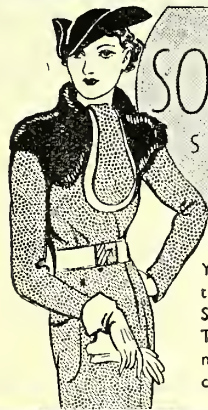
**WRIST
SUPPORT**

With Elastic
Fastening

Pat. No. 410258

*Comfortable to wear,
stays "put," and does
not impede play.*

Sole Manufacturers: Groat
& Co., Ltd., 35 Wood Street,
London, E.C.2.



SOUTHALLS
SANITARY
TOWELS

You need only stock
the full range of
Southalls's Sanitary
Towels to satisfy the
needs of all of your
customers.

- The "ORIGINAL" and most popular.
- The "CELTEX" soluble, easily disposed of.
- The "K" made entirely of absorbent cotton wool, with very soft cover.
- The "COMPRESSED" for travelling. A very popular line.

SOUTHALLS (BIRMINGHAM) LTD.

**ALWAYS
A STEADY DEMAND
FOR**

Hobson's Choice
FEET POWDERS

Supported by our steady, con-
tinuous advertising in trams,
newspapers, etc.

**KEEP YOUR STOCK
UP-TO-DATE**

Selling from oldest stock first, and
should you have any stock, old or
soiled, return direct to us when we
will replace. For advertising matter
also send direct to:—

HOBSON TRIMBLE

& CO. LTD.

Phone :
Leeds
27102

LEEDS, 2

The new plaster that can be washed

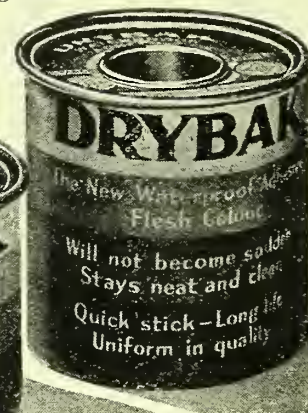
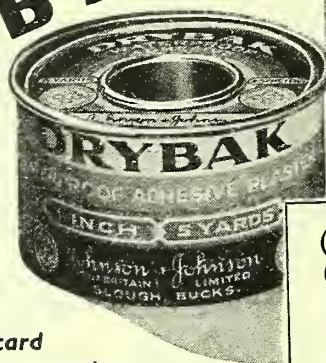
Drybak, the new waterproof adhesive plaster can be applied in every case where a plaster is required, and can be left on as long as desired owing to the fact that it remains neat and clean for an indefinite period.

Drybak becomes instantly fresh and clean after washing in soap and water.

It stays in place without curling or becoming ragged at the edges—and keeps the wound dry, doing away with the necessity for changing the plaster and thus disturbing the cut or abrasion it covers.

Drybak is made in all convenient forms and sizes.

DRYBAK
THE PLASTER
THAT STAYS
CLEAN



Send a postcard
for trade terms to-day

Johnson & Johnson SLOUGH, BUCKS
(GT BRITAIN) LIMITED

Associate Companies: AUSTRALASIA: Johnson & Johnson, Ltd.,
194/200 York Street, N. Sydney. SOUTH AFRICA: Johnson &
Johnson (Pty.) Ltd., 20 Prichard Street, Johannesburg.

Representatives and Agents in NEW ZEALAND, INDIA, CHINA,
JAPAN, & the principal European Countries

ALL THE WORLD OVER,
'BURMEX' HAVE
PROVED SUPREME

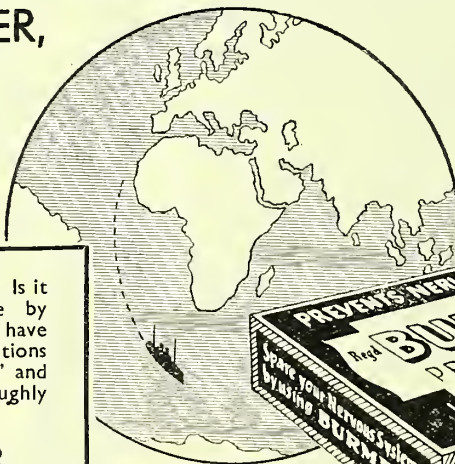
Your customer relies on your judgment. Is it worth while destroying his confidence by supplying inferior goods? "Burmex" have been tried under all possible climatic conditions and have proved perfect. Sell "Burmex" and KNOW that you are selling a thoroughly trustworthy line.

WHERE 'BURMEX' DIFFER

Manufactured by a special Hot Cured process which ensures all portions have the same strength and durability

Careful selection of raw materials results in a thin, highly sensitive product.

The combination of this process with the raw materials gives extreme strength and elasticity.



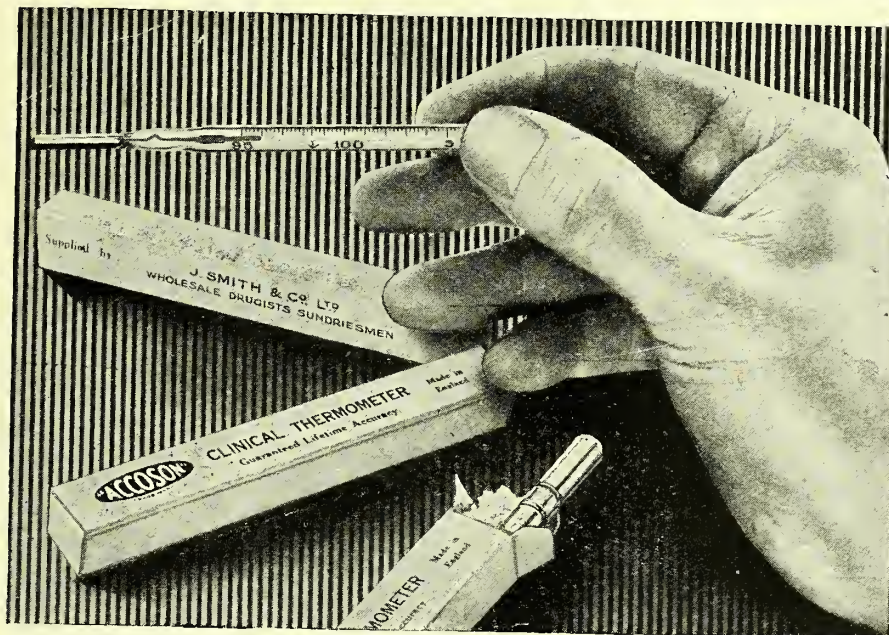
Write for details of prices and terms. A free sample will be sent on request to any reputable chemist or wholesaler. Please apply on own business memo.

A. BERMAN & SONS, LTD.,
QUAY STREET, DEANS GATE, MANCHESTER

BURMEX

REGD. PREVENTATIVES

THE "Easy Set" ACCOSON Clinical THERMOMETER



—the Clinical with the highest reputation for...

● LIFE-TIME ACCURACY ● NO TROUBLE IN SHAKING DOWN ● CLEAR READING MAGNIFYING INDEX WITH EASY FOCUS GUIDE LINES ● CLEAR CUT DIVIDING & LEGIBLE FIGURES ● INDELIBLE MARKINGS ●

Accoson "Easy Set" Thermometers are the most scientifically accurate thermometers ever made. Patented originally over thirty years ago by A. C. Cossor and Son (Thermometers) Ltd., they were, at that time, revolutionary in design and although since improved in minor details, they are still the finest thermometers obtainable, and are chosen by all discriminating Doctors.

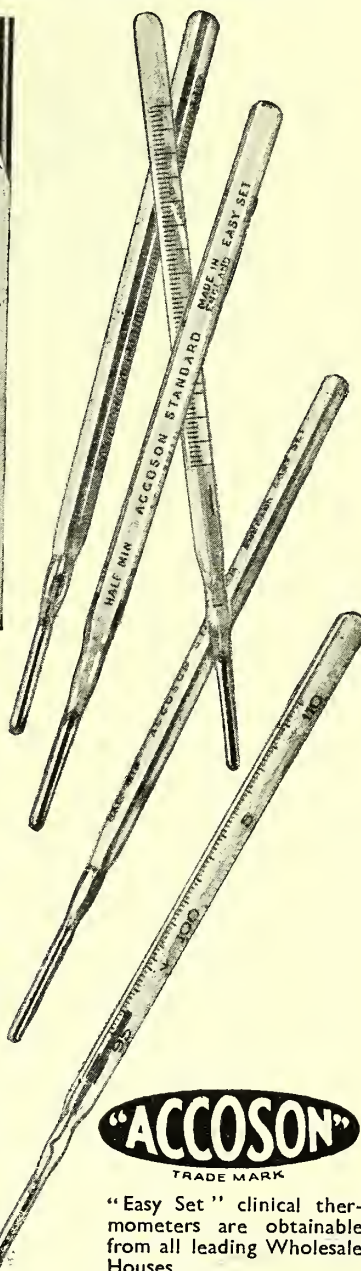
If you do not already stock ACCOSON "Easy Set" Thermometers, be sure that you order them next time. You will appreciate the extra value.

Now supplied in individual Cartons by:—

A. C. COSSOR & SON (THERMOMETERS) LTD.

ACCOSON WORKS • VALE ROAD
FINSBURY PARK • LONDON • N.4

The Leading British House for all types of THERMOMETERS for over $\frac{3}{4}$ century



"ACCOSON"
TRADE MARK

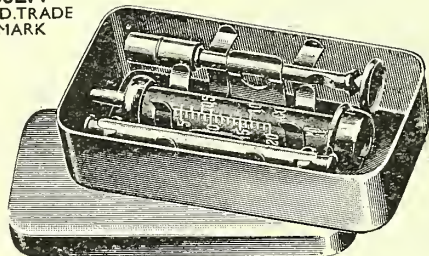
"Easy Set" clinical thermometers are obtainable from all leading Wholesale Houses.

Customer's name engraved on back of thermometer at no extra charge.

BRITISH INDUSTRY
**ORIGINAL RECORD
HYPODERMIC SYRINGES**

BRITISH MADE

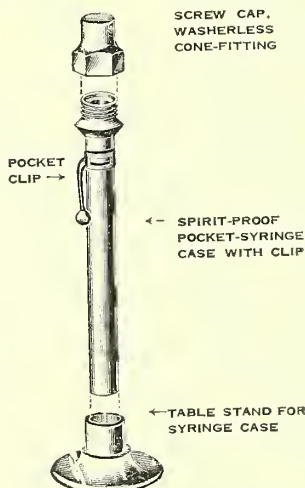
"JJEFF"
REGD. TRADE
MARK



Perfect instruments that give satisfaction. Low prices, but fully guaranteed. We are specialists in Syringes and also have a repair service, broken ones being returned equal to new.

All capacities and types 1 to 100 ccm's.

The "JJEFF" Brand Syringes and Instruments are known the world over for perfection of British workmanship.



**BRITISH SYRINGE
CASES, SPIRIT
PROOF FOR THE
POCKET.**

BRITISH HYPODERMIC NEEDLES, SERUM, LUMBAR PUNCTURE, ASPIRATING, BLOOD EXTRACTION, Etc.



When in London inspect our permanent exhibit at
BRITISH INDUSTRIES HOUSE,
MARBLE ARCH, LONDON, W.1.

ORDER THROUGH YOUR USUAL WHOLESALER
Overseas Houses should mark their indents "JJEFF" Brand Goods

**SURGICAL & CHEMICAL
CO. LTD.**

147 & 157 FARRINGTON ROAD, LONDON, E.C.1
Telephone: Clerkenwell 9900 Cables: Clerkenwell 9900, London

J. H. Haywood, Ltd.,

**Wholesale Surgical
Appliance Manufacturers.**

EXPERTS in SPECIAL ARTICLES to MEASURE.
Ladies' and Gents' ABDOMINAL BELTS for all purposes.
CHEST EXPANDING BRACES.
SUSPENSORY BANDAGES. ELASTIC HOSIERY
(Seamed and Seamless)
TRUSSES (Spring and Elastic) for all types of Hernia.



Wholesale Dealers in Medical
Glass, Surgical Dressings,
Invalid & Nursing Require-
ments, Water and Air-Proof
Goods, General Druggists'
Sundries.



Castlegate, NOTTINGHAM.

Established over a Century

Telephone:
Nottingham 40488.

Telegrams:
"Appliance, Nottingham."

To BUYERS of TRUSSES!

The most complete up-to-date facilities for the manu-
facture of **RUPTURE APPLIANCES** of every known
English and American pattern are operating at

**BLACK BULL WORKS,
MARKET ROAD, LONDON, N.7**

Hard Rubber, Celluloid, Leather and Mole
Covered and Elastic Band Trusses, under the

"MASTER"
BRAND
TRADE MARK



are sold in all
Markets of the
World.

"KO-RALLIUM." A new flexile covering
for Steel Springs, is immune from Warping, Cracking,
Shrinking or Peeling, Non-Inflammable, Impervious
to Moisture, Neutral to URIC ACID Secretions.
Supersedes Hard Rubber or Celluloid.
Get to know of this. It is Something Different!

Suspensory Bandages and Jock Straps

We offer distinctive lines of outstanding value. Our
weaving sheds allow of all intermediate profits being
passed to our customers.

Write for sample range at Special Rate, then compare.

F. SCHUTZE & CO., LTD.

Black Bull Works, Market Road, London, N.7



A "NATIONAL" Production

"National"

Dispensing Bottles

are Strong, Serviceable and Suresealing!

NEATLY PACKED IN 3 AND 6 DOZEN SIZE, NON-RETURNABLE CARTONS

- ★ CONVENIENT IN SIZE
- ★ EASY TO HANDLE
- ★ UNIFORM IN QUANTITY

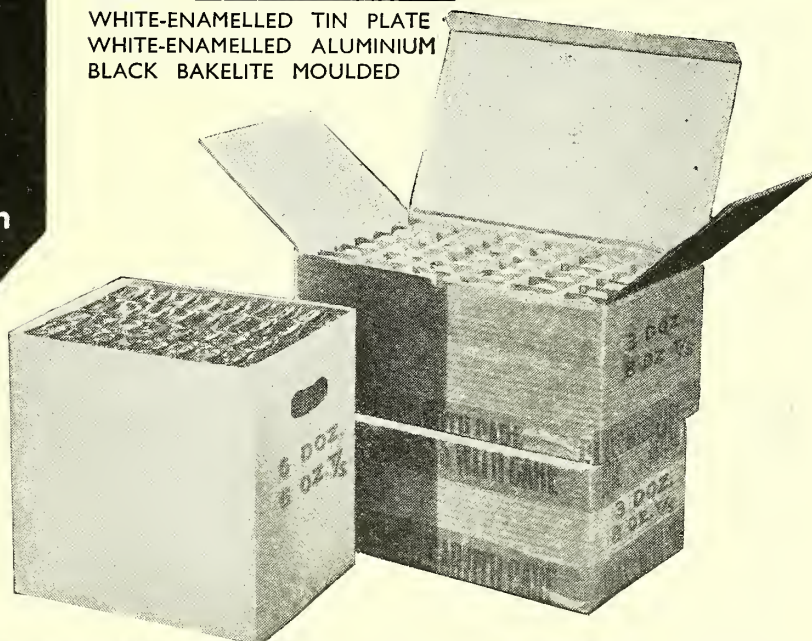
CARTONS OF EITHER 3 or 6 doz. BOTTLES
THROUGHOUT THE RANGE

ALSO

Cork mouth Bottles WASHED & PAPERED
Screw " " WASHED & CAPPED

SCREW CAPS SUPPLIED in

WHITE-ENAMELLED TIN PLATE
WHITE-ENAMELLED ALUMINIUM
BLACK BAKELITE MOULDED



*May we advise
Name and Address of
your nearest
"National"
distributor?*

NATIONAL GLASS WORKS (YORK) LTD.

WORKS:
FISHERGATE, YORK

'Phone: HOLborn 2146

1 Charterhouse St., London, E.C.1
(WHOLESALE ONLY)

BAKELITE CAPS & MOULDINGS • COMPOSITION STOPPERS • CORKS OF ALL DESCRIPTIONS



Wholesale only

Phone: Hop 2043/4/5

Mundet Cork Products Ltd.

12-18 ABBEY ST., TOWER BRIDGE ROAD, LONDON, S.E.1

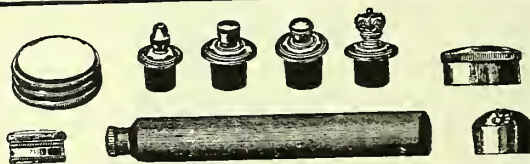
British Made
"Adaptocaps"

for all
your
bottle
Capping



The London Capsule Co.

EMPIRE WORKS, MITCHAM RD. CROYDON
TELEPHONE: THORNTON HEATH 3014 TELEGRAMS: "METACAP, CROYDON"



FOR BRITISH MADE METAL SMALL-
WARES OF EVERY DESCRIPTION
GET IN TOUCH WITH

L. ELBOZ & SON
MANUFACTURERS, MERCHANTS & AGENTS
"RAYON D'OR" WORKS

Tel.: Brixton 3456 94 FERDENE ROAD,
LONDON, S.E.24

NOW BRITISH MADE

WAGNER'S DRY BOTTLE CAPS
BEST IN QUALITY & APPEARANCE



R. V. WAGNER

33 BROOKE ST., LONDON, E.C.1 Tel. Holborn 5690

GK Patent Foods

in Tins or Tons
Prepared and Packed under
—Your Own Name



OUR NEW WORKS AT KINGSBURY

GEORGE KING & CO. LTD.
ALBION FOOD MILLS
KINGSBURY RD. KINGSBURY
LONDON. N.W. 9.

BRITISH MADE

STYLE & QUALITY

BOTTLES & CONTAINERS

FREDERICK HAMPSON LTD

PERSEVERANCE GLASS WORKS : SALFORD 5 : LANC'S

Phone :
Trafalder Park 0814/5

"Grams :
"Attention, Salford"

Introducing the NEW

Lip-vac

SUPERLATIVE MODEL WITH
POURING (CORKLESS) STOPPER
OF BAKELITE MATERIAL

Eliminates cork objection and liquids pour with stream-like smoothness. New transparent cup for delicacy of taste. Makes instant appeal to all alike. Made in alluring colours of blue, green, red and orange.

Be first in the field and reap the benefit
—LIBERAL TERMS
FIXED SELLING PRICE
4/11 Pint Size
TRADE
59/- per dozen
Less 33 1/3 %

Obtainable from your usual WHOLESALER
JULY DELIVERY

Further particulars may be had from :—
LIP-VAC FLASKS (LONDON) LTD.
24 ELY PLACE, LONDON, E.C.1

new style
vacuum flask
pouring stopper
NO CORK REQUIRED.
LIP-VAC

LIP-VAC
POURING STOPPER

BRIT. PAT. 373756

Of profit and value to

*Chemist &
Customer*

CARNATION CORN CAPS



Costs 5/- per doz.
Retail at 9d. each.

Bonus of 1 dozen with orders of 1 gross.

ARE A MODERN ACHIEVEMENT OF MEDICAL SCIENCE

They are just the line to maintain that close personal touch with the customer which is the most valuable asset to the Pharmacist

We also make "Thermoid" Anodyne Plaster. Strongly recommended as a remedy for Bronchitis, etc. Attractively packed and retailing at 1/- each (6/6 per dozen).

"Sanoid" Rubber and Zinc Oxide Self-adhesive Plaster on spools or in dustproof containers.

Attractive Show Material and samples on request.
Buy direct from the actual manufacturers and sell with confidence.

"SANOPLAST"

ADAPTABLE FIRST AID DRESSING



The complete Handy Pliable Surgical Dressing prepared for ready application for all minor injuries. It consists of medicated Dressing superimposed on Antiseptic Self-adhesive Plaster, readily conforms to the injury and remains firmly in position.

6d. size in decorated 3/9 doz. 1/- size "Magnum" 7/6 doz.
tins, Vest Pocket size 3/6 doz. in decorated tins
6 doz. lots 3/8 per doz. 6 doz. lots 7/- per doz.

"SANOID"

TREATMENT FOR BOILS



Each box contains Four Self-adhesive extremely soft oval Felt Pads with Special Medicated centres. Their application gives extreme comfort and their value is consequently highly appreciated by the user.

1 doz. attractively enamelled 9d. tins in Counter Box 5/- doz.
Bonus of 3 tins with orders of 3 dozen.

CUXSON, GERRARD & Co. Ltd.

SURGICAL AND MEDICAL PLASTER
SPECIALITIES OF PROVED MERIT

MANUFACTURING CHEMISTS
OLDBURY — BIRMINGHAM

DESIGN QUALITY & SERVICE



NOT ONLY ARE OUR CONTAINERS IN THE FORE FOR MODERN DESIGN
IN GLASS PACKAGING, BUT THEY HOLD THAT POSITION FOR THEIR
EXCELLENT QUALITY AND THE SERVICE WHICH IS BEHIND THEM

WHOLESALE & EXPORT ONLY

THE

INTERNATIONAL BOTTLE CO. LTD.

48 FORE STREET, LONDON, E.C.2

Phone : Met. 6161 (4 lines)

Grams : Autrefois - Telex - London



VISKAPS *The* **ORIGINAL VISCOSE BOTTLE CAPSULES**

Ensure security, hygiene and an attractive finish to every bottle. VISKAPS seal and mould themselves to the contour of almost any bottle and stopper. VISKAPS can be printed with lettering or design in fast ink. VISKAPS can be supplied Wet or Dry, and dyed to suit any colour scheme

★ **VISKRINGS** are similar to Viskaps, except that they leave the top of the closure open, allowing any printing or device to be seen

ENTIRELY BRITISH MADE

VISCOSE DEVELOPMENT CO. LTD., Woldham Road, Bromley, Kent

Telephone: RAVENSBOURNE 4561

The Chemist's Compact Library



Every
Book
by
an
Expert

		By Post
Pharmaceutical Formulas, Vol. I	15/-	15/9
Pharmaceutical Formulas, Vol. II	15/-	15/9
The Art of Dispensing	8/-	8/6
Veterinary Counter Practice	7/6	8/-
Diseases and Remedies	5/-	5/3
Urine Analysis	4/-	4/3
Pharmaceutical Botany	5/-	5/4
Wootton's Chronicles of Pharmacy (2 vols.)	10/6	11/3

PUBLISHED BY

The
CHEMIST AND DRUGGIST

28 ESSEX STREET, LONDON, W.C.2



APPEAL *through pleasing packaging*

U.G.B.
GLASS TOILET & PERFUME BOTTLES
OPAL POTS

how grace and beauty effect SALES

the perfect pair

CAP AND BOTTLE MANUFACTURED BY

U.G.B. Opal Jars and Bottles, complete with moulded KORKALITE
colours, provide the perfect packaging. Simple grace and beauty
demand attention, enhancing the Sales value of your product. For new
designs of compelling attraction our expert designer is at your service

UNITED GLASS BOTTLE
MANUFACTURERS LIMITED

40-43 NORFOLK STREET, STRAND, LONDON, W.C.2

Telephone: TEMPLE BAR 6680 (10 lines)

Telegrams: "Unglaboman, Estrand, London"

for Perfumes and the Toilet

A variety
of moulds
is at your
service.

New moulds
to customers'
own designs.



Lax and Shaw Ltd.

Wholesale
and Export
only

REGD. OFFICE • ALBERT GLASS WORKS, HUNSLET, LEEDS 10
THREE FACTORIES • ALBERT, CLARENCE & DONISTHORPE
'Phone: 21568 (2 lines) • 'Grams: 'Feeders, 'Phone, 'Leeds

ON YOUR SHELVES

compact and easy to locate



IN YOUR HAND

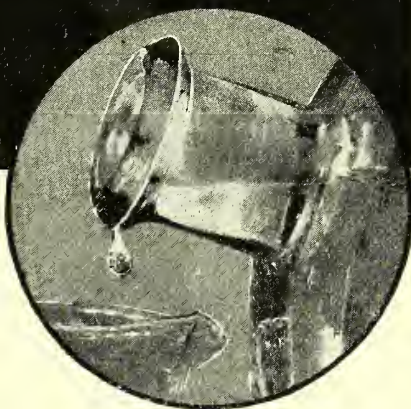
comfortable and clean pouring

WITH INDESTRUCTIBLE SUNK ENAMELLED LABELS

This shape of flat bottle stands more compactly on your shelves than any other, and is boldly labelled on the narrow front edge with etched-in, indestructible enamelled lettering—white for liquids, black for powders.

Exhaustive independent tests show the glass from which they are made to have the lowest solubility to reagents and to boiling water—bottles made from cheap glass are deficient in this respect and should be shunned.

BEATSON, CLARK & Co., Ltd.
CHEMICAL AND MEDICAL GLASS MANUFACTURERS
ROTHERHAM, YORKS.



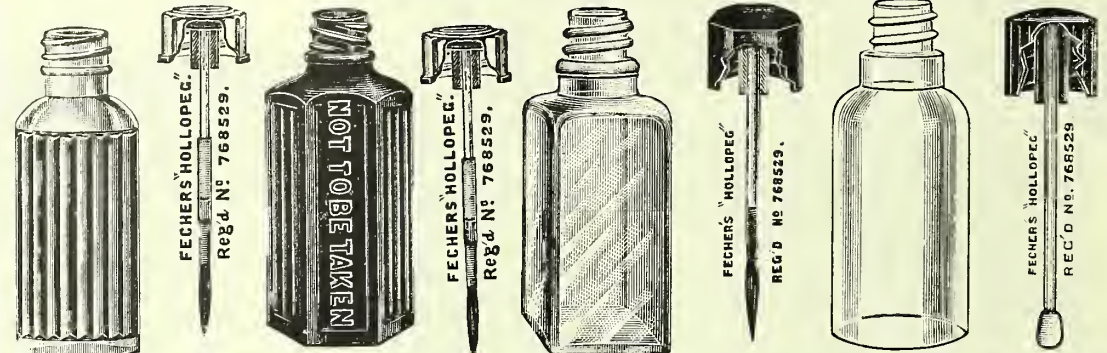
NOTE THE SPECIAL LIP FOR EASY POURING

Little refinements, such as this special shape of lip which pours cleanly drop by drop, show our long years of experience in chemists' wants.

And of course, the whole trade knows that our ground stoppers (every one tested) are perfect in their fit.

ESTABLISHED · 1751

®



817 W 817 WF 815 BHS 817WF 826 826 F 427 427 RF

BRUSHES or RODS
WHATEVER THEY BE
REST BEST
in
"HOLLOPEG"
Regd. No. 768529 and others

No. 800 & 801 are well-known
"OILTITES" made by
M. J. FECHER, Ltd., Cuckoo
House, 10 Dod St., London, E.14

801 800 308 930

THE
BOTTLE
FOR THE
DISPENSARY

Our
best quality hand made

MEDICAL FLATS
(PALE TINTED)

*will reduce your bottle account
and increase your satisfaction*

ALSO PANELS, POISONS, VIALS, &c.

WM. HANSON & SONS, LTD.
ROSEGROVE GLASS WORKS,
BURNLEY

English
Filter

POSTLIP
Papers


SQUARES
CIRCLES
FOLDED
ROLLS

WHITE
GREY
PLAIN
ANTIQUE
EMBOSSED
CRINKLED

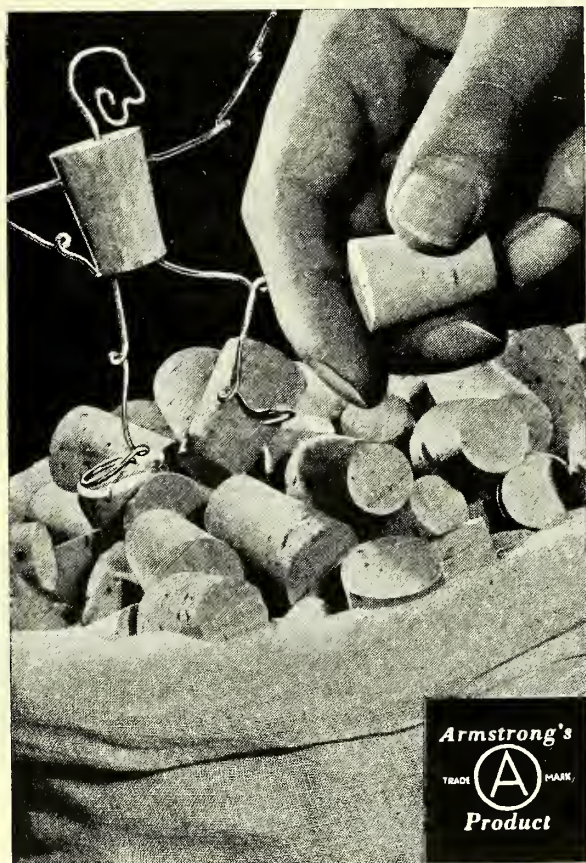
SAMPLES
FREE

*Postlip Filterings are stocked by all the leading Wholesale
Laboratory Dealers.*

Evans, Adlard & Co. Ltd
Postlip Mills, Winchcombe, Cheltenham.



IT'S JUST AS EASY TO SAY
Armstrong's CORKS

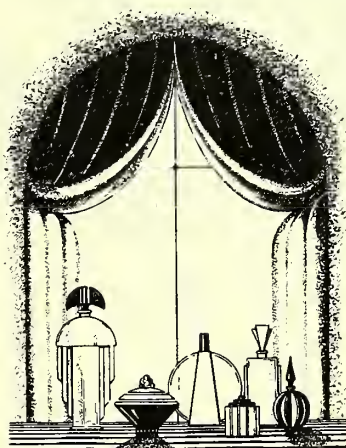


IF ONE FITS THEY ALL FIT

No misfit ever finds its way into a bag of Armstrong's Corks. Each cork is the "double" of its fellows in size, taper and quality.

● Send for the Armstrong Cork String containing a sample of each of the eighteen corks in the normal Armstrong range for chemists. At the same time we'll send you all the information you want.

ARMSTRONG CORK CO. LTD.
Aldwych House, Aldwych, London, W.C.2
Telephone: Holborn 7503



*Designers & Makers
of
Quality Glassware
for
Perfumery.*

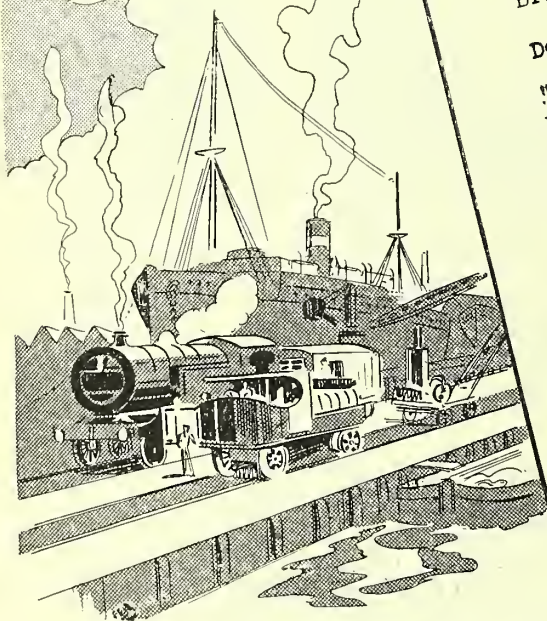
ESTABLISHED 1828

**WOOD BROS. GLASS CO.
LIMITED**

BARNSELY

ENGLAND

Successful Enterprises



Messrs. Wm. Gardner & Sons (Gloucester) Ltd.,
Bristol Road, GLOUCESTER.

Dear Sirs,

"The plant which you installed for us last year has worked faultlessly, and thus there has been no need to write.

We feel that you will be interested to learn that our venture is proving a great success. We have large contracts with some of our Colonies and also with European countries.

This success has been assisted in no small measure by the efficacy of your plant, erected to meet our special requirements, and we lose no opportunity of bringing to the attention of technical experts the fact that the perfect blending of our compound is ensured by your machinery."

Yours faithfully,

Write for details of the Gardner plant which you think would be of most assistance to you.

Wm. GARDNER & SONS
(Gloucester) LTD.

Bristol Road, GLOUCESTER

Telephone : Gloucester 2288 (2 lines)

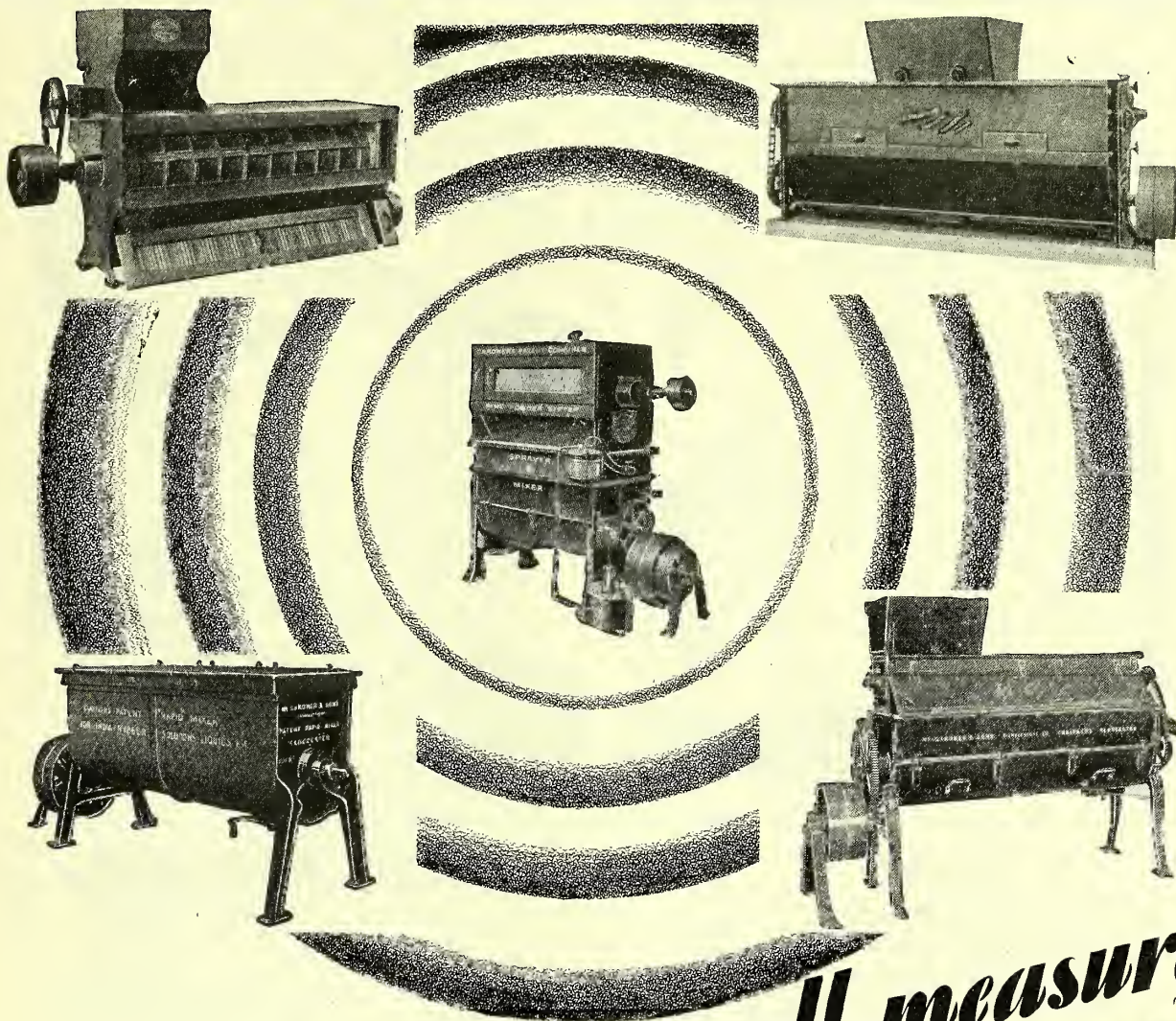
London Office :

19 GRAY'S INN CHAMBERS,
20 HIGH HOLBORN, W.C.1

Telephone : Chancery 7347

**CRUSHING
GRINDING
DRYING
SIFTING
MIXING
SPRAY-
BLENDING
COOKING
PLANT**

Modified where necessary to meet the special needs of your products, or new plant designed for exceptional conditions.



Assisted in no small measure
by **GARDNER'S**
PATENT 'RAPID'
SIFTING & MIXING
MACHINERY

SAVE TIME and you SAVE MONEY

This machine solves the problem of quick filling of sprinkler neck containers with either light or heavy liquids. Most simple in operation, it saves time, is absolutely fool-proof and does its job speedily and efficiently.

**SPEED UP
YOUR FILLING
WITH THIS
MACHINE**

The 'LAUDER' No. 4A Compressed Air FILLING MACHINE

(Patent No. 404419)

is made in strong STAINLESS
STEEL, and easily cleaned. Prices :
2 gallons, Single Filling, £8 10 0
5 gallons, Duplicate Filling £12 10 0

Units complete with canulae type
nipples

Carr. paid, F.O.B. 5% extra. Let
us solve your filling problems.

L. T. LAUDER
46, St. Martins Ave.,
LEEDS, 7

'Phone: 43039
Wires: LAUDER,
LEEDS, 43039



Small TABLET MACHINE

Capacity 60 to 80
Tablets per minute

Working on "rack and
pinion" principle.

Absolute simplicity
and smooth working.
Adjustable screw for
pressure.

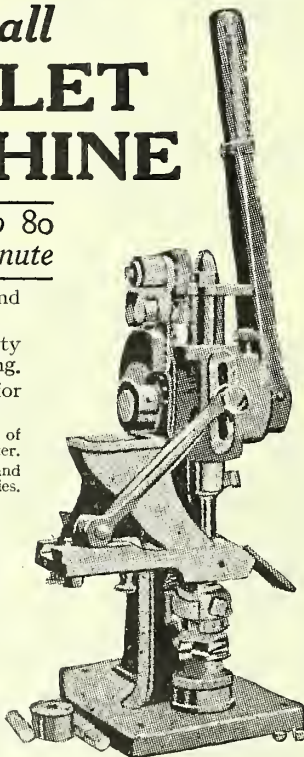
Any size or weight of
Tablet up to 1/2 in. diameter.
Complete with spanner and
one set of punches and dies.

£6 : 10 : 0

**J. W. PINDAR
& CO.**

Druggists' Engineers
Pill Machine
Manufacturers,

Endwell Road,
Brockley,
London, S.E.4.

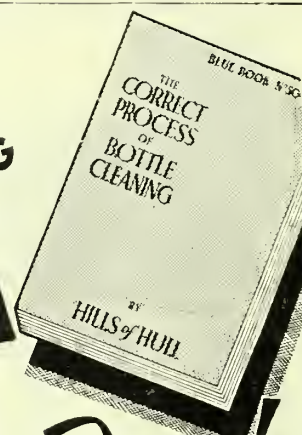


The final word on modern BOTTLE CLEANING

—an authoritative work
which "dates" previous
publications.

HILL'S "BLUE BOOK No.50
NOW ON THE PRESSES.
MAY WE RESERVE
YOUR COPY?

Everyone engaged in the bottling
industry will need this new
work . . . more informative,
more comprehensive than any
ever issued. It places at your
finger tips indispensable facts
and advice on all the latest
developments in machinery,
equipment and methods . . . it
deserves the close attention of
every principal. Make certain of
securing a copy gratis, by apply-
ing immediately on one of your
business letter-headings.



Free!

**The THOMAS HILL
ENGINEERING CO. (HULL) LTD.**
Makers of Correct Process Bottle Cleaning Equipment
**9 PARK LANE,
Stepney, HULL**

* MIXING MACHINES * FOR ALL PURPOSES

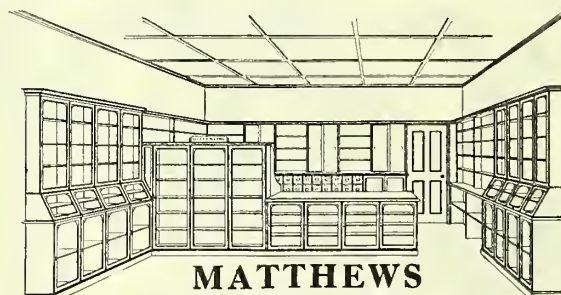
ALSO

**GRINDING, FILLING & SIFTING
MACHINES, &c.**

INQUIRIES INVITED

WRITE FOR CIRCULAR No. 24

W. ROWLANDSON & CO.
75 MARK LANE, LONDON, E.C.3

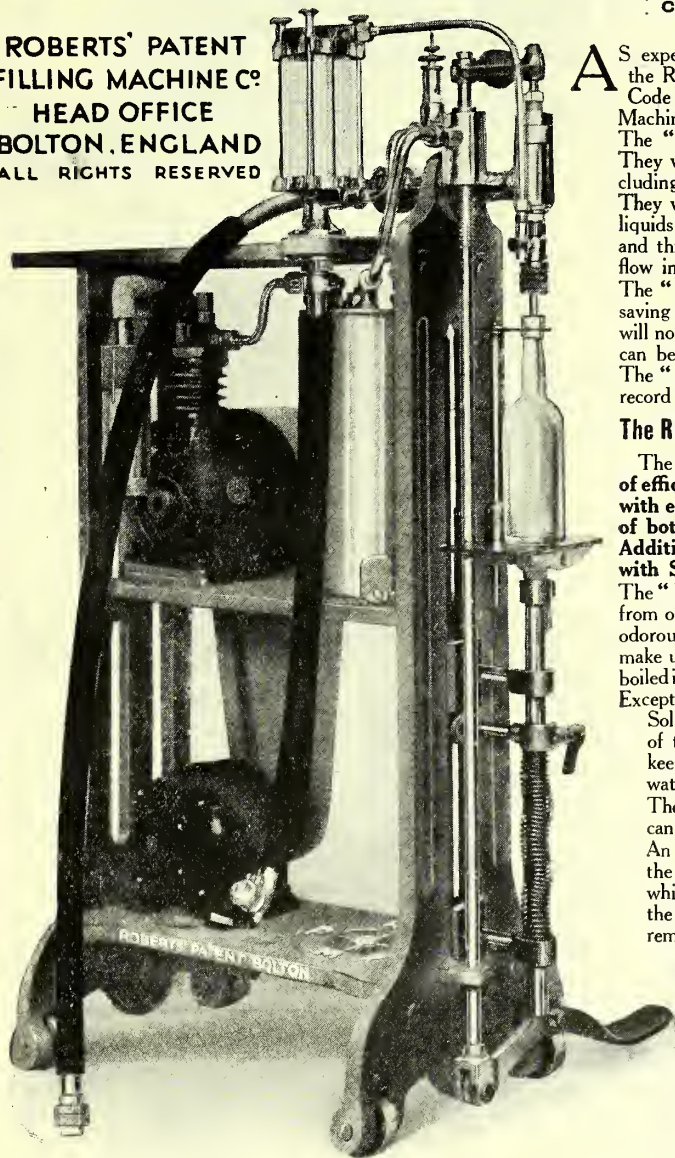


MATTHEWS
CHEMIST SHOP FITTERS

14 & 16 MANCHESTER ST.,
LIVERPOOL, 1 Tel.: Cent. 2693
Established 1843

UNPRECEDENTED VALUE**3 MACHINES IN ONE**
VACUUM FILLING. VACUUM AND
GRAVITY FILLING GRAVITY FILLING

ROBERTS' PATENT
FILLING MACHINE CO.
HEAD OFFICE
BOLTON, ENGLAND
ALL RIGHTS RESERVED



LEO "B." Drawing No. 2133.

WRITE TO-DAY FOR PRICES AND OPINIONS OF USERS.

**ROBERTS' PATENT
FILLING MACHINE CO.**

(T. ROBERTS, PROPRIETOR)



**33 ROUNDCROFT STREET,
BOLTON, LANCS.**

ALL RIGHTS RESERVED.

'Phone: 661 Bolton. Telegrams: "Filling, Bolton."

**ROBERTS' PATENT
PORTABLE "SUNBEEM"
VACUUM GLASS, STONE
AND TIN BOTTLE FILLER**

Code Sunbeem "LEO." Patent Nos. 284834-28,
310642-29. Other Patents pending.

AS experts in manufacturing Bottle Filling Machines, we consider the Roberts' Patent "Sunbeem" Vacuum Bottle Filling Machine, Code "Leo," to be superior to any other Vacuum Bottle Filling Machine on the Market. A claim fully endorsed by eminent users. The "Leo" Machines are designed for general and special use. They will fill any shape or size of bottle from drachm to quart, including any sort of neck from sprinkler moulded neck to a wide neck. They will also fill tin bottles and stone bottles. They will fill thick liquids, liquids containing sediment, fruit sauces, salad cream, etc., and thin volatile liquids without waste or evaporation. All liquids flow in a closed circuit.

The "Leo" will fill the bottles clean and to any height. A great saving of time is effected by the fact that, in Vacuum Filling, liquid will not flow into broken bottles. The sorting out of damaged bottles can be left to the machine.

The "Leo" method of filling is so simple that a juvenile can obtain record results.

The ROBERTS' Patent SUNBEEM "LEO" FILLING NIPPLES

The Roberts' Patent Sunbeem "Leo" Filling Nipples are a **Marvel of efficient simplicity and cheapness**. Three sizes are supplied with each machine, which are sufficient to cover a large range of bottles and variety of liquids.

Additional Nipples or renewals only cost 10/6 each complete with Staybrite Steel Tubes.

The "Leo" is self-rinsing, liquid can be passed through the Machine from one bucket to another. The process of dismantling after filling odorous or poisonous liquids is exceedingly simple. The parts which make up the "Leo" Valves can be taken apart in short sections and boiled in Caustic or other solutions—the parts are smooth finished inside. Except for the above reasons, dismantling is seldom necessary—

Solvents and rinsing fluids can be circulated through every part of the Machine by simply holding a bottle on the Nipple and keeping the pump **working**—a negligent operator cannot draw water into the pump during rinsing.

The Suction and release tubes are inexpensive—duplicate tubes can be used exclusively for certain liquids.

An Interception Chamber is connected between the Valves and the pump. Liquid drawn into this chamber will raise a float which will operate a valve and break the vacuum long before the pump is in danger. The chamber can be emptied without removal from the Machine.

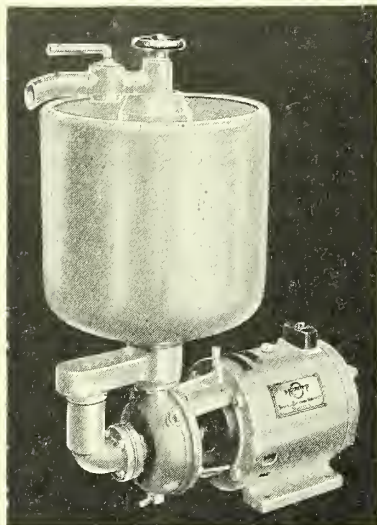
The "LEO" is a strong, well-finished Machine weighing about 2½ cwt. The motor is ½ H.P. The pump has ample capacity to operate two single-head Roberts' Patent Sunbeem Vacuum Bottle Fillers, in addition to itself; or two Roberts' Patent Gravity Bottle Fillers converted into Sunbeem Vacuum Fillers—acting as motor and pump for them. They need not be grouped close together.

Every part of the "LEO" is designed to save trouble and to give long service. All parts are interchangeable. All parts are guaranteed 12 months against faulty material or workmanship.

The "LEO" can be moved about to any part of a room and operated without preparation other than connecting to a lamp holder or wall socket. The "LEO" will operate from the lighting circuit or the motor can be suitable for power circuit.

We require to know the Voltage Phase and Periodicity.

USE THE IMPROVED— EMULSIFIER MIXER for your HAIR CREAMS LIQUID POLISHES, INSECTICIDES, ETC.



SEND LARGE
SAMPLE OF
YOUR PRODUCT
FOR
FREE TEST

Price complete with
Universal Motor

£22 . 10 . 0

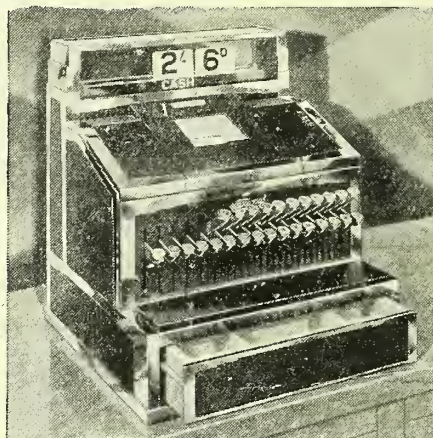
working parts
chromium plated,
container vitreous
enamel.

IT'S A

Mopump

PRODUCT

RHODES, BRYDON & YOUATT LTD.
Stockport England.



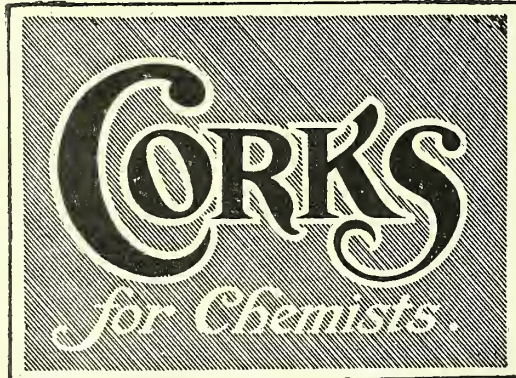
HERE IT IS!

The beautiful new 1935 National Cash Register. Only a few weeks old, it is already helping scores of chemists to take full advantage of improving trade conditions. If you, too, realise the vital importance of having an EFFICIENT cash-checking system, we shall be glad to supply full details. Time lost is money lost. Write, 'phone or call:—

**The National Cash Register
CO., LTD.**

225 Tottenham Court Rd., LONDON, W.1

Telephone: Museum 9811 (9 lines)



Send us your Enquiries
and compare our prices.

Wholesale and Export.

C. OLLEY & SONS, Ltd.

Established 1844

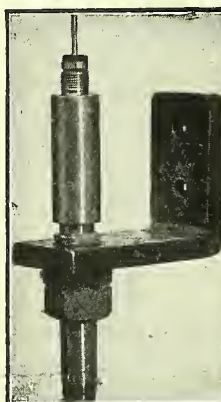
Camperdown St. and Gt. Alie St., London, E.1

Tel. No.: Royal 2868. Tel. Ad.: "C. conference, Ald, London."

METALLIC CAPSULES
FOR ALL KINDS OF BOTTLES AND JARS

The Tonkin Metallic Capsule Co.

Proprietors: C. Olley & Sons, Ltd.



SPRINKLER BOTTLES

Automatic Rinsing

Can be connected to the town's water supply by metal or india rubber hose pipe.

By merely passing the mouth of the bottle over the jet and pressing the bottle downwards water is automatically sprayed into the bottle. The water completely drains away from the bottle as it is withdrawn.

Further particulars may be obtained from
the makers:—

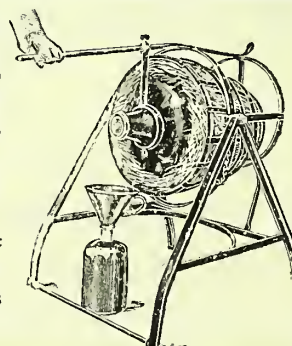
**The THOMAS HILL
Engineering Co. (HULL), Ltd.**
9 PARK LANE, STEPNEY, HULL

CARBOY STAND AND TILTER.

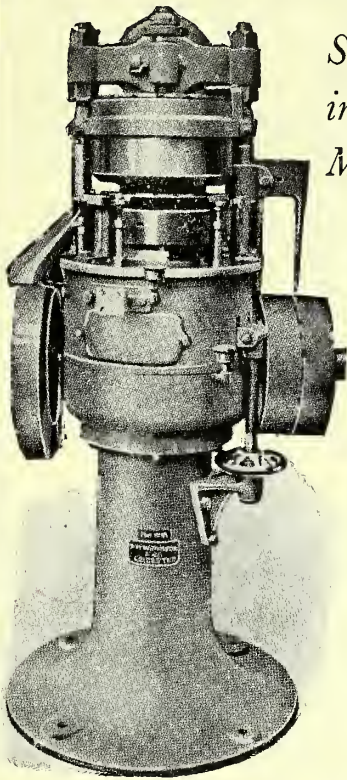
For drawing off small
quantities of acids, etc.,
from Carboys, with ease
and safety.

The Carboy can be tipped
to any position with one
hand.

**LEIGH & SONS,
Orlando Iron Works
BOLTON.**



TABLET MACHINES



*Single Punch Machines
in six sizes. Rotary
Machines in six sizes*

Special Geared
Machines
Heavy Type
Rotary Machines

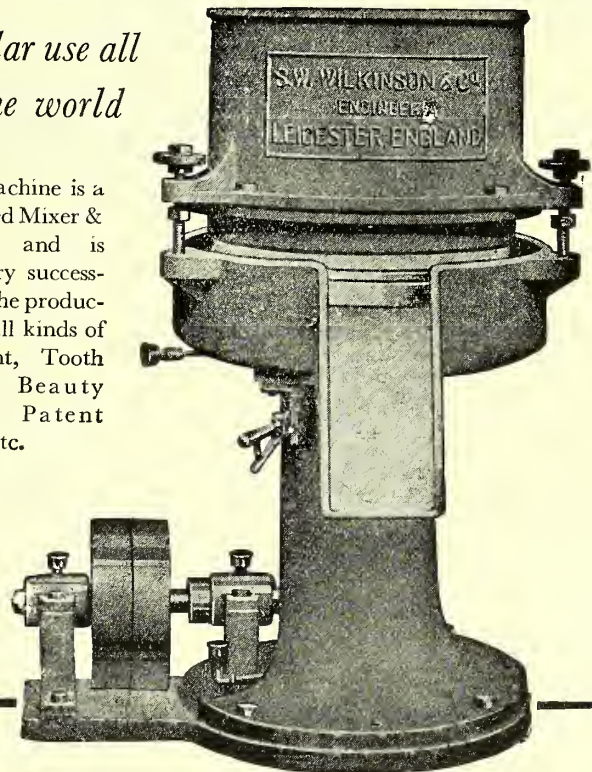
★
GRANULATING
MACHINES
COPPER PANS
CAPSULE PLANT
CONDENSERS
STILLS, ETC.

★
EACH MACHINE
INCORPORATES
THIRTY YEARS'
ACCUMULATED
EXPERIENCE

SUPER SPEEDY MILL

*In regular use all
over the world*

This Machine is a
combined Mixer &
Grinder and is
used very success-
fully in the produc-
tion of all kinds of
Ointment, Tooth
Paste, Beauty
Cream, Patent
Foods, etc.



S. W. WILKINSON & CO.

The Engineers and Specialists in Pharmaceutical Machinery
WESTERN ROAD, LEICESTER

Motor Goggles to
suit all Classes in

IMITATION SHELL,

NICKEL FRAMES,

GOLD FILLED
FRAMES,

NICKEL FRAMES with
ZYLO AND LEATHER
CUPS, ETC., ETC.

All Above Fitted
with Sun Proof
Glasses

To Sell from
1/- to 7/6 pair



THIS SHOW-
CARD HAD THE
EFFECT OF IN-
CREASING OUR
SALES ENOR-
MOUSLY LAST
YEAR

WE ANTICIPATE
AN INCREASED
DEMAND THIS
YEAR

TRY A CARD

THE MOTORING
SEASON
IS NOW ON

*This Handsome Showcard, 12" x 9½", Printed in Colours, sent Free with each half-dozen Goggles Ordered.
Sample Goggles sent.*

JOHN BAIRD & SONS, Wholesale & Manufacturing Opticians,
Telephone & Extensions: CENTRAL 541
Telegrams & Cables: SPECTACLES, GLASGOW (A.B.C. CODE)
ESTABLISHED 1889
70 MITCHELL STREET,
GLASGOW, C.1

THE SOUTH OF ENGLAND COLLEGE OF PHARMACY

Principal—H. LUCAS, Ph.C., F.C.S.

"THE SCHOOL FOR SUCCESS"

EXAMINATION RESULTS

At the April Examinations in London 21 students
from this College were successful, representing over
60% of the presentation

SUCH RESULTS SPEAK FOR THEMSELVES!

New Courses for Parts I and II start on October 7th.
Revision Courses for October Exams. start on July 22nd.

For particulars apply THE PRINCIPAL—

186 CLAPHAM ROAD, LONDON, S.W.9.

British Optical Institute

COLLEGE OF OPTICS LIMITED

FERN LODGE, GROVE ROAD, BRIXTON, S.W.9

Complete Training for the Sight-Testing Optician

Full-time and Part-time Courses, covering the
preparation for both the F.B.O.A. and F.S.M.C.
examinations, and including clinical work, are
conducted under the personal direction of the
Principal, Mr. G. W. COLEBROOK, F.B.O.A.
(Hons.), F.S.M.C. (Master's prizeman), assisted by
Mr. E. W. WOODRUFF, B.Sc., F.B.O.A. (Hons.).

Recognised by the B.O.A. as a training centre, under the
new regulations.

For full particulars apply to: The Principal.

Competent established Opticians of good status are eligible for Membership of

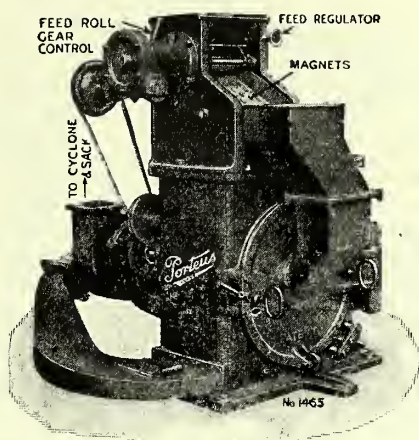
THE NATIONAL ASSOCIATION OF OPTICIANS

The last date of entry for the **FELLOWSHIP EXAMINATION** of the **N.A.O.**
to be held at the

Technical College, Birmingham

on Tuesday, Wednesday and Thursday, July 30th, 31st, and August 1st,
is June 30th

Entrance Forms, Syllabus, full particulars, etc.
Secretary N.A.O. 130 Princes Rd., Liverpool, 8

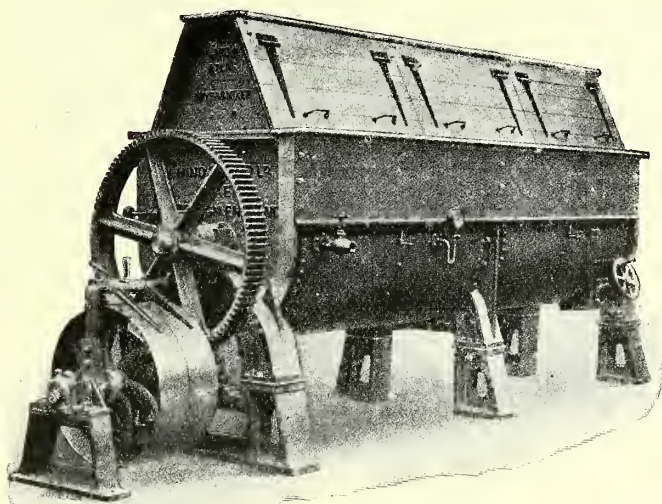
**BEATER-TYPE GRINDERS****'PREMIER'**

For grinding all kinds of spices, nutmegs etc.; cereals, seeds and all classes of grindable products. Motor coupled or countershank drive.

Cool grinding with Air inducted discharge to cyclone collector. Made in all sizes. A high-grade machine at a low price.

Porteus
LEEDS.

well built,
speedy, efficient
& TROUBLE-FREE

MIXERS AND SIFTERS**'ATLAS'**

ATLAS Mixers & Sifters are correctly designed, substantially constructed and really do stand up to the job. They can be made to suit all requirements for vacuum or

pressure with or without steam or water jacket. Send us your enquiries and let us advise a mixer or grinder to tackle **your** problem.

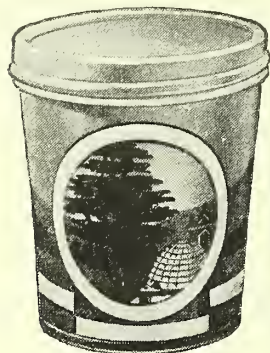
GEORGE PORTEUS & SONS (LEEDS) LTD., LEEDS BRIDGE, LEEDS

'Phone : Leeds 20529 & 20520

SHE CAME . . .

SHE SAW . . .

SHE BOUGHT

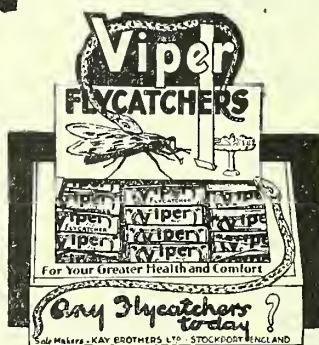


MONO

The first and the foremost of "nested" containers

MONO CONTAINERS LIMITED, PARK ROYAL, LONDON, N.W.10. Tel.: Willesden 0900-1-2, 5131-2.

Putting
the
question



VIPER patent leakproof Flycatchers are always factory-fresh and always immaculately clean. Each has a wire hanger and a positive drip-preventer. Three widths *2 in., 3 in. and 4 in. Outers of 3 dozen.

* Also in cartons of 3 to retail at 3d. ("triplets").

RADIO talks, lectures and press articles on flyborne disease—your all-powerful allies in selling VIPER Flycatchers—spring to aid your sales when this vivid display box puts its question at the psychological moment—*while your customer stands at your counter.*

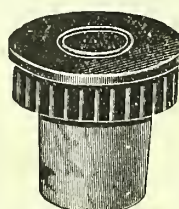
From Wholesalers or write the
Patentees & **KAY BROTHERS LTD.**
Sole Makers: St. Petersburg, STOCKPORT

**THE PREMIER
CHEMISTS' SHOPFITTERS**
Specialists in Design and Manufacture of
CHEMISTS' SHOPFRONTS & FITTINGS
Established over half a century

SHOW-CASES
For Immediate Dispatch

H. MILLS & SONS, LTD.
163-5 OLD ST., LONDON, E.C.1

COMPOSITION STOPPERS
BAKELITE MOULDINGS
COMPACTE COSMETIC & ROUGE BOXES



200 Varieties
Any Colour.

A suitable Composition Stopper will enhance the selling value of your package. Let us fit your Bottles and quote you.



W. J. SHARPLIN, Ltd.
Middle Lane Works, Hornsey, LONDON, N.8
Telephone: Mountview 0952

None genuine without the following
guarantee and signature.

"I guarantee the contents to be prepared
according to my formula."

Arthur Richards

DUO FORMULA
RHEUMATISM'S 30 DAY CURE

For Rheumatism, Gout, Sciatica,
Lumbago, Neuritis, and every
form of Uric Acid Ailment.

Tablets : 3/- ; 5/6 ; 7/6

Trade Prices : 30/- ; 53/- ; 70/- per doz. net.

Ointment, one size only : 1/3

Trade price : 12/- per doz. net.

ARTHUR RICHARDS, SOLE PROPRIETORS

DUOFORM LIMITED

Manufacturing Chemists,

ALDWYCH HOUSE, LONDON, W.C.2

FOR CHEMISTS ONLY !

Avoid outside competition by making

6d. TANNA BRAND LIVER PILLS

your recommended line for CONSTIPATION, &c.

1 doz. at 4/-. 3 doz. at 3/9. 6 doz. at 3/6. All orders carriage paid

Sample bottle post free to any chemist on receipt of P.C.

BERT SINGLETON, Chemist, Spring Hill, Accrington, Lancs.



THE ONLY ABSOLUTE COCKROACH EXTERMINATOR

is **BLATTIS**, The Union Cockroach Paste

This is guaranteed by the Sole Makers to
completely destroy them in all climates.

HOWARTHS, 473 Crookesmoor, SHEFFIELD, 10

Tins 14/-, 26/-, 49/- doz. Liberal discounts



ATTRACTIVE PACKING
& SHOW MATERIAL

A BRITISH PRODUCT OF EXCELLENCE

Advertised by forceful demon-
strations and display. Sup-
ported by solid propaganda to
Dental Surgeons.

Highest Profits to Retailers
Yields up to 55% on costs.

Sells repeatedly !

Retail prices 1/- & 1/6

Available through majority of
London P.A.T.A. Wholesalers.

**ASK FOR SPECIAL
OPENING OFFER**

from **Cesar Laboratories L.d.**
197 Upper Thames St., E.C.4
Phone : Central 2919

National Health Insurance Dispensing

NOTICE TO CHEMISTS

KLX

(B R A N D)

tablets are now avail-
able in special bottle
pack for filling medical
prescriptions

SPECIAL N.H.I. PACKS

48 tablets 5/4 per bottle nett

144 „ 15/9 „ „ „

OBTAINABLE FROM ALL LEADING WHOLESALERS

The medical profession are being
advised and chemists are urged to place
stock in hand immediately against
panel requirements.

Proprietors :—

MICHAEL HART & CO. LTD.,
21 Cavendish Square, London, W.1.

CYSTEX NEVER FAILS

The public knows that Cystex is a genuinely successful cure for all Kidney and Bladder troubles — people buy it readily and come back for more, for Cystex never fails.

The Chemist is perfectly safe in carrying stocks of Cystex because heavy and continuous advertising in the National, Provincial and Periodical Press ensures a steady demand and because it is protected by the definite guarantee to the public of satisfaction or money back and by the 'Guaranteed Sale' Terms.

In the Autumn and Winter the advertising schedule will be bigger than ever before — demand will be proportionately increased. Be ready — don't disappoint your customers. Order Cystex now.

Sole Distributors: G. M. Williams & Co., 81 Lamb's Conduit St., London, W.C.1

Cystex

(Pronounced Siss-tex)

BRAND

KIDNEY & BLADDER TABLETS



"SILF"

Brand Obesity Tablets

The **SAFE** and **CERTAIN** Remedy for
OVER-WEIGHT

TRADE PRICES

1/3 Size	-	-	11/3	Per Dozen
3/-	"	-	27/-	" "
5/-	"	-	45/-	" "

WINDOW SHOW TERMS

For a fortnight's Window Display of our Show Material and an order of the minimum value of £2, thirteen packets are sent to each dozen ordered. Window Shows sent carriage paid.

For further particulars and supplies of Show Material, write to:—

THE SILF CO., LTD.
39 Shaftesbury Avenue, London, W.1

DARTRING LANOLINE TOILET AND GARDENIA VANISHING CREAMS

Supplied in Tubes 7½d. and 1/3.
British Manufacture Stocked by all leading Wholesalers
PARK BUCKERIDGE & CO., LTD.
Dominion Works, Thames Road, Chiswick, London, W.4
Telephone: Chiswick 4794

PONTAMPON (Registered Trade Mark)

Pond's Vaginal Tampons

"A" ICHTHYOL COMPOUND

"B" ICHTHYOL 10%, &c., &c.

THE PONTAMPON COMPANY

55 HOLBORN VIADUCT, LONDON, E.C.1.



Wholesale Prices

1/3 Size
11/6 per dozen net
3/- Size
27/6 per dozen net

Carriage Paid Gross Quantities or equivalent.

Manufactured only by
J. F. WHITE & CO., Chemists
BENSON STREET, LEEDS.

Counter Bills free on application.

"W-5" brand tablets

FOR THE

REJUVENATION OF THE SKIN

FROM WITHIN

This preparation, which embodies an entirely new scientific principle, is the first and so far the only one to influence biologically the texture and appearance of the skin by internal action. Scientific information which fully explains the merits of this preparation will be sent on request.

Profit on every First Sale
which will eventually bring repeats
Average customer means 45/- to you

5'3



Fixed Retail Prices
Small box—21/-
Large box—58/6

Literature and show material
sent free on request even if no
orders for goods.

The success of "W-5" Brand Tablets proves conclusively that an article of outstanding merit, backed by judicious advertising, will sell readily, though not in the low-price class.

IMPORTANT

An absorbingly interesting and beautifully illustrated book is
THE CHIEF SELLING MEDIUM
and should be in the hands of every chemist.

Supplies can be obtained from wholesale houses or from:

GELTY DISTRIBUTING CO.

(Distributors for the British Empire)

158-162 OXFORD STREET, LONDON, W.1

Telephone: Museum 5555



MAUVE BOXES for Women
GREEN BOXES for Men

THE P.A.T.A.

(Proprietary Articles Trade Association)

**ENSURES PROTECTED PRICES
AND FAIR PROFITS**

For nearly 40 years the P.A.T.A. has been a "household word" in pharmacy and the drug trade.

The Association has secured for retailers and wholesalers fair and protected rates of profit on their sales of proprietary articles, and for manufacturers the co-operation of satisfied distributors.

Every chemist who is not yet a member of the Retail Section is asked to show his appreciation of the price-maintenance work of the P.A.T.A. by joining. The annual subscription is 7s. 6d.

Proprietary Manufacturers are invited to write for particulars of membership.

43 Gordon Square,
LONDON, W.C.1

Dr. N. TUCKER'S ASTHMA REMEDY

(The original preparation containing Cocaine)

AND

BRONCHASMIN

(not containing Cocaine)

for ASTHMA, Etc.

TUCKER'S SPECIAL ATOMIZERS

Now British Made at Reduced Prices

Trade Terms on Application

Sole Proprietors:

A. O. TUCKER & Co., Ltd.,
CHEMISTS

491 OXFORD STREET, W.1

CURICONES

**THE CERTIFIED
APPROVAL
OF OVER
3,200
DOCTORS**

**WORLD-FAMOUS
ANTI - RHEUMATIC
CAPSULES**

with

“Curicones” stand right to the forefront of the anti-Rheumatic field because the remarkable claims made for them have been justified time and time again. No purely anti-Rheumatic remedy at the present day has the same solid reputation for efficacy, or the same spontaneous approval of the medical profession. You, yourself, can secure a generous share of the vast “Curicones” turnover, by giving this wonderful remedy a representative display on your counter.

**A REMARKABLE
LIST OF DISTIN-
GUISHED PATRONS**

His Grace the Duke of Devonshire
Her Grace, Constance, Duchess of Westminster Earl Soudes
The Countess of Moray The Countess of Harrington The Countess of Ravensworth The Viscount Hawarden The Viscountess Ashbrooke The Viscountess Portman The Dowager Lady Monson Sir William Cooper, Bt. Sir Clifford Cory, Bt. Lady Younger Lady d'Arcy Osborne

**A VAST
BACKING OF
IMPRESSIVE
NATION - WIDE
ADVERTISING**

**22 YEARS'
REPUTATION
FOR
UNPARALLELED
EFFICIENCY**

RETAIL PRICES

One bottle ... 5/-
Three bottles ... 14/-
Six bottle package ... 24/-

STEPHEN MATTHEWS & CO. LTD.

MANUFACTURING CHEMISTS

19, 20 & 21 FARRINGTON STREET,
LONDON, E.C.4.

Phone: Central 9083. Grams: Curicones, Cent, London



OFFER THIS:

When customers ask for a colour-restorer for grey hair, or a tonic to stop falling or to promote growth, offer

MORGAN'S
POMADE

you may do so in full confidence that it will perform what it promises; over 40 years' reputation, a world-wide trade and thousands of testimonials support its claims to genuine merit. Retail **1/9** and **3/3** per pot; wholesale **14/-** and **26/-** per doz.

Both Articles in the P.A.T.A. list.

MARIE ANTOINETTE (Regd.)

**EGG JULEP
SHAMPOO POWDER**

DELICATELY PERFUMED.

Suitable for all Hair; keeps same Bright, Soft and Glossy.

Established 40 years.

Loose, 3d. Shampoos - - - 24/- gross (less 5%).
1/6 Boxes (seven 3d. Shampoos) - 13/- doz.

**THE MARIE ANTOINETTE CO.,
149, JUNCTION RD., LONDON, N. 19.**

YOU SHOULD STOCK

TAMAR INDIEN GRILLON

Because this famed fruit laxative is consistently advertised in the best magazines, and is in constant demand.

Dr. Jaillet's PEPTO-FER

Because it has earned world-wide repute as a pleasant-tasting tonic which produces the most beneficial effect on convalescents and anemics.

RIGOLLOT'S MUSTARD LEAVES

Because their strength and superior quality make them the best mustard plasters obtainable.

Note: RIGOLLOT'S MUSTARD for veterinary purposes is an indispensable line for the chemist who serves a rural community.

All inquiries (except for Pepto-Fer) to:

GUYOT-GUENIN & SON (Dept. C.D.)
59 Southwark Bridge Road, London, S.E.1.

For Pepto-Fer, please write direct to:

Dept. C.D., DARRASSE FRÈRES,
13 rue Pavée, Paris IV, France.

The biggest advertising campaign ever launched for dog medicines



Bob Martin Advertising is bigger than that of all other dog-medicine manufacturers put together. This summer, three hundred million advertisements will tell dog owners how to keep their dogs fit by using

BOB MARTIN'S

T A S T E L E S S

CONDITION POWDERS

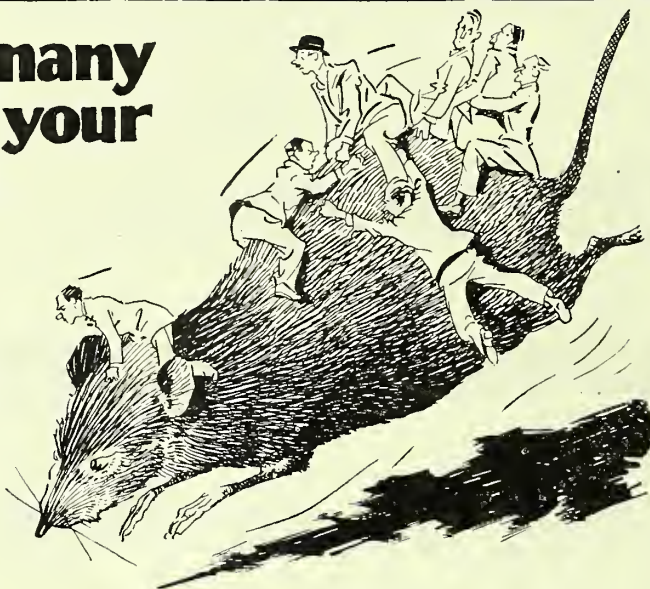
Rats bring many customers to your counters

The extensive destruction caused by rats and mice and the horror of their presence results in a heavy sale of "Raticides." Rodine is a raticide you can recommend with every confidence. Display it on your counters and in your windows; you will find it very profitable to do so. Thousands of farmers, warehouses, businesses and shops keep rats down with RODINE. Let them know you supply it.

Display and Recommend

RODINE

THE PROFITABLE RAT KILLER



Get it direct on
Best Terms

T. Harley, Ltd.
Manufacturing Chemists,
55 So. Methven Street,
Perth, Scotland.

BATTLE'S VERMIN KILLER

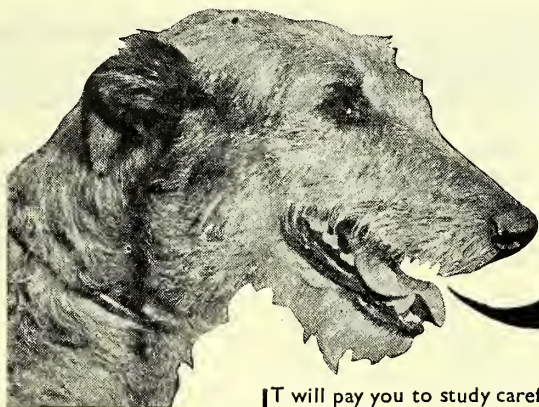
Of all Patent Medicine
Houses at 3/-, 5/6, 9/-,
18/- and 36/- per dozen.

In packets at 5d., 9d.,
1/3, 2/6 and 5/- each
(P.A.T.A.)

The *sure* destructive agent which may be confidently recommended by Chemists for quick clearance of rats and mice. (*Users' testimonials on request.*)

Prepared only by

J. C. M. BATTLE, Ph.C., LINCOLN



72.8%

PROFIT ON COST

Sherley's Tonic and Condition Powders

CUT THIS OUT FOR REFERENCE

RETAIL	TRADE
6d.	4/- per dozen
9 Powders	3/9 per dozen for 2 dozen or over, or for any quantity included in £2 parcels
1'3	10/- per dozen
24 Powders	9/4½ per doz. for 1 doz. or over, or for any quantity included in £2 parcels
2'6	20/- per dozen
54 Powders	18/9 per doz. for 1 doz. or over, or for any quantity included in £2 parcels

It will pay you to study carefully the excellent terms obtainable on SHERLEY'S Tonic and Condition Powders and see how much you gain.

There is always a big demand for this quick and ready seller.

2½% Discount on £2 Parcels Plus a further 5% for Window Display

A £2 parcel of Sherley's Tonic and Condition Powders shows a profit on cost of no less than 72.8%. You can make up a £2 order consisting entirely of Tonic and Condition Powders, or an assorted parcel of any of our foods and medicines which retail at prices not exceeding 6/-. Moreover, all Tonic and Condition Powders included in £2 parcels are invoiced at the special quantity prices quoted alongside, irrespective of the quantity ordered.

Thus the profit on Tonic and Condition Powders, when forming part of a £2 parcel, is still at the rate of 72.8% on outlay.

Make up a £2 parcel today! An excellent range of Show Material is available and orders may be booked direct or through your usual wholesaler.

SHERLEY'S

Tonic and Condition Powders

In 3 strengths for small, medium and large dogs.

A. F. Sherley & Co., Ltd., 18 Marshalsea Road, London, S.E.1

POULTRY DISEASES!!

Thousands of Poultry Farmers use CHLOROZONE and The PUTNAM GIZZARD CAPSULES at least once a year. Are you supplying them?

CHLOROZONE. The internal disinfectant.

PUTNAM GIZZARD CAPSULES for worms in poultry. Direct or from your wholesaler.

Write for publication "FARMING LIVE STOCK," post free. PUTNAM'S DEPENDABLE SERVICE, Northam, Devon.

The Best for 100 Years and Better Now!

STEINER'S VERMIN KILLER STEINER'S PHOSPHOR PASTE JAMES'S PHOSPHOR PASTE

Recommended and sold by chemists all over the world.

E. STEINER & Co., 110 Bradford Street, BIRMINGHAM.

HARVEY'S Horse Remedies

P.A.T.A.
Protected Prices.

THESE Remedies are used in most of the Training Stables, Stables of Masters of Hounds, and by many thousands of the best Private Horse Owners in the United Kingdom and Abroad.

Supplies through all Wholesale Houses.

HARVEY & CO. (DUBLIN), Ltd., DUBLIN.



Continuous and Steadily Advertised Goods FOR DESTROYING RATS AND MICE

DANYSZ VIRUS

Retail Price (Protected) Net Wholesale Price
Virus for Rats and Mice, single tube, 2/- .. 15/- per doz.

3 tubes, 5/- ..
Virus for Mice only .. single tube, 1/6 .. 9/-
3 tubes, 3/-

Date-expired tubes returned to us postage paid will be exchanged free of charge.

Danysz Virus in Liquid Form

Retail Price Wholesale Price
Bottles 6/- each .. 4/6 each
" 4/6 " .. 3/9 "

HALLER'S EXTRACT OF SQUILL and DANZO RAT KILLER

Discount off Retail Prices 25% Monthly with Order. Account, or 33½% Cash

Retail	Monthly A/c	Cash with Order
½ gall. tins .. 10/- .. 7/6 .. 6/8		
1 " .. 18/- .. 13/6 .. 12/-		
5 " .. 80/- .. 60/- .. 53/4		

DANZO BEETLE POWDER

For destroying Blackbeetles, Cockroaches, Crickets, &c.

Retail Prices (Protected)	Wholesale Prices
In cartons 9d. each .. 6/9 per doz.	
" 1/6 " .. 13/6 "	
" 3/- " .. 27/- "	

Danzo Beetle Powder will not deteriorate by keeping.

CARRIAGE PAID ON ALL ORDERS.

To be obtained from

HALLER LABORATORIES, LTD.

325 Borough High Street, LONDON, S.E.1

Telegrams: "Virudana, Sedist, London."

Telephone: Hop 2717



LEICA SPOOLS

Leica and similar spools
require special processing.

Dealers who wish their
Leica Spools to be
processed as they should
be :—*Fine Grain Developing*
and enlarged to 5" x 4", will

send them to—

THE
GEORGE BROWN PHOTO Co.
LIMITED

P.O. Box No. 3
NEWTON ABBOT, DEVON



QUALITY- SPEED- SERVICE

Places like Manchester require all of the above

- NO OTHER FIRM IN OR NEAR MANCHESTER
GIVES A SERVICE AND GENERAL EXCELLENCE
OF WORK COMPARABLE WITH THIS ●

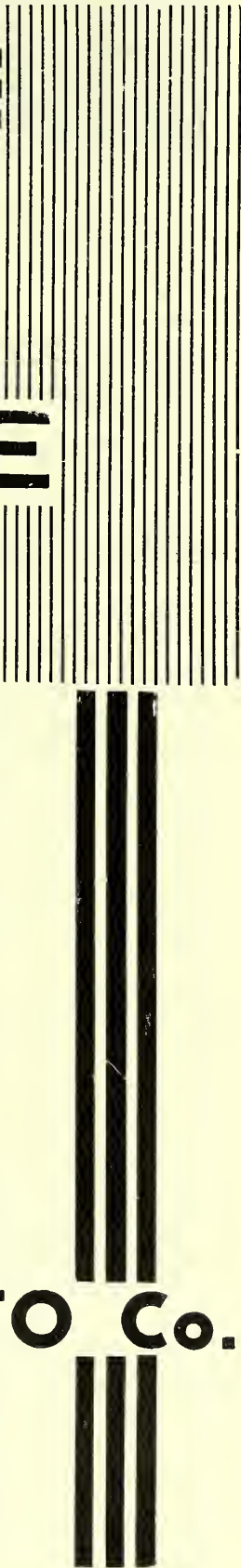
Manchester Dealers who wish to increase their Photographic Business will obviously send their work to us. A p.c. will have our lad calling at once.

Once again ; we are NOT controlled by
any manufacturer ! ———

INDEPENDENCE IS OUR MIDDLE NAME !

THE
GEORGE BROWN PHOTO Co.
LIMITED

27a BRAZENNOSE STREET,
MANCHESTER, 2



INCREASE YOUR DEVELOPING AND PRINTING SERVICE!

MAKE USE OF OUR REALLY USEFUL SERIES OF
D. & P. BOOKS, ALSO OUR PRINTED AIDS TO SELLING
INTERESTING RANGE OF SAMPLES POST FREE

BURALL BROS., WISBECH, Cambs.

"VITAMIN TESTED YEAST"

Yeast specially prepared for medicinal purposes
GUARANTEED ABSOLUTELY PURE

MIDGLEY & PARKINSON, LTD.
Warren Works, Pudsey, LEEDS

Senna

FROM OUR
OWN GROWERS

Alexandrian & Tinnevely
Pods Leaves Siftings

John Ronaldson & Co. 15 Seething Lane, London.

BLYTON, ASTLEY & CO. LTD.

Eagle Laboratories, Lr. Broughton, Manchester,

FOR

**LOZENGES, PASTILLES, "MENTHELLS,"
and Quick-Selling SPECIALITIES.**

WE CAN HELP YOU

in furnishing you with Surgical and other
sundries to give a high average profit!

Enquiries will receive our prompt expert attention

REYNOLDS & BRANSON Ltd., 13 Briggate, LEEDS 1

Telegrams: REYNOLDS Leeds

Telephone: Leeds 20046

OPTICAL TUITION

FOR THE

S.M.C., B.O.A. and N.A.O. DIPLOMA Examinations

Particulars:—

G. A. SCURR, F.S.M.C., F.B.O.A., F.N.A.O., F.I.O., F.C.O., M.P.S.
50 HIGH STREET, BARNET, LONDON, N.

Are you stocking

YESTAMIN?

Dried Yeast in its most concentrated and most convenient form—powder
and tablets. Generous terms and good discounts. Write today to:

WOOLDRIDGE MEDICINE Co., Ltd., 16 Cedars Rd., London, S.W.4

THOMAS & LINTON, LTD.

4 GRAY'S INN ROAD, LONDON, W.C.1

Telephone: Holborn 5518

Everhot Bags,

Canda Products, Iodine Locketts,

Ephedrol, Litesome Belts

Deliveries from London Stock

ALL CHEMISTS SHOULD STOCK

ABDINE

THE GOLD MEDAL HEALTH DRINK. Quick Seller. Big Profits.
Over 60 years' Reputation. "Abdine" is obtainable from the Wholesale
Houses. Attractive Display Material constantly available.
DUNCAN McGLASHAN LTD., ABDINE WORKS, WESTFIELD RD., EDINBURGH

IONIZED IODINE

(MOLSON BRAND)

Obtainable from the usual wholesalers or the makers

MOLSON IONIZED IODINE CO. Ltd.

34 C, GABRIEL'S HILL, MAIDSTONE



CACHETS "FINOT"

(White or Coloured)

With inscriptions in any desired tint;
also Plain or Embossed.

"A distinction all their own."—C. & D.

"Perfection of Cachets."—Lancet.

These Cachets are especially adapted for Headache, Neuralgia and
other powders.

COOPER SON & CO. LTD., 80 Gloucester Road, SOUTH KENSINGTON
In 17 Sizes to fit the various types of Cachet Machines.

MAWSON FILTERS

always give satisfaction. They
eliminate all risk of water
contamination. Simple in
construction, they do their job
efficiently at a minimum cost.
They have a world-wide reputa-
tion. May we send you our des-
criptive list? Overseas enquiries
specially invited.

The MAWSON FILTER Co., 20 Grainger St. W., Newcastle-on-Tyne

ENGLISH OIL OF CAMOMILE

(ANTHEMIS NOBILIS)

From Plants Grown on My Own Farm

R. W. B. STARKE

The CHESTNUTS FARM, EYE, SUFFOLK

Also ENGLISH CAMOMILE FLOWERS

"SEPTONAL"

ANTISEPTIC. : FOR FIRST AID.

Full Particulars and Prices from the Manufacturers:—

THE "I.D.L." INDUSTRIALS LIMITED,
116 PILGRIM STREET, NEWCASTLE-ON-TYNE.

ROZALEX KEEPS HANDS CLEAN

Display Cards of 1 doz. 6d. Tubes. Display
Cartons of 2 doz. 6d. Tubes. Display Cartons
of 1 doz. 1/- Tubes. Aluminium Containers
2/- & 2/6. From wholesaler or direct. Show-
matter and literature supplied on request to

ROZALEX LTD., YORKSHIRE HOUSE, CROSS ST., MANCHESTER

ROZALEX OINTMENT PREVENTS

CHAPPED SUN
HANDS BLISTERING
Tubes 6d. & 1/-
packed 1/2 & 1 doz.

HOW IS YOUR STOCK OF

ESTIVIN HAY FEVER REMEDY?

SHOW CARD SUPPLIED FREE.

T. CHRISTY & CO. LTD., OLD SWAN LANE, E.8.4

BRADFORD EDUCATION COMMITTEE

Bradford Technical College**DEPARTMENT OF PHARMACY***Fees for Full Courses for the*

Chemist and Druggist Qualifying Examination	- 20 Guineas
Pharmaceutical Chemist Qualifying Examination	- 20 Guineas per Session
Bachelor of Pharmacy (University of London)	- 17 Guineas per Session
Preliminary Scientific Examination	- - - - - 15 Guineas

Apply to the **PRINCIPAL, TECHNICAL COLLEGE, BRADFORD**, for particulars regarding these courses of study.

London College of Pharmacy

Founder: H. WOOTTON, B.Sc. C. W. GOSLING, Ph.C.

Principal: IRVINE G. RANKIN, B.Sc., Ph.C.

SPECIALISTS in TRAINING PHARMACISTS

FULL-TIME COURSES will commence on OCT. 2nd.

**PRELIMINARY SCIENTIFIC
CHEMIST & DRUGGIST QUALIFYING.**

Benches now being reserved.

REVISION COURSES FOR P.S. and C. & D.

£1 1s. 0d. per week for SEPT. Exams.

SUMMER REVISION COURSES will commence on July 3rd.

"ESSENTIALS of PHARMACY"

New Edition 6/6 Post Free

Apply Principal:

361 CLAPHAM ROAD, S.W.9

BR1xton 2161

**LIVERPOOL SCHOOL OF
PHARMACY**

Principal:

H. HUMPHREYS-JONES, F.I.C., F.C.S., Ph.C.

Assisted by

JOHN BUTLER,
B.Sc., F.I.C., Ph.C.

W. E. COATES,
B.Sc., A.I.C., M.P.S.

W. G. COTTOM, M.P.S.

E. I. GREIG, Ph.C., M.P.S.

P. H. JONES, F.I.C.

R. A. WILLIAMS,
Ph.C., M.P.S.

Miss OLIVE SMITH,
B.Sc., M.P.S.

**Preparation for the Preliminary
Scientific & Qualifying Examinations
of the Pharmaceutical Society**

The next Session will commence on October 3rd.

Full particulars from Principal:

2 BLACKBURN PLACE



SHADEINE
FOR TINTING GREY HAIR

This popular article is largely advertised and stocked by all Wholesale Houses.

Trial size 8d., per doz.	6/-
1/4 size, per doz.	12/-
2/6 size, per doz.	24/-
3/9 size, per doz.	36/-

The SHADEINE Co., 49 Churchfield Road, Acton, W.3.

Eau de Cologne . . . Lavender Water

ALL TOILET PREPARATIONS

Low, Son & Haydon, Limited

5 GT. QUEEN ST., LONDON, W.C.2 COURT
TELEPHONE: HOLBORN 4007 EST. 1790 PERFUMERS

"KLEEN" BLADES

6 for 6^D.



W. R. SWANN & CO.
LTD.
PENN WORKS, SHEFFIELD 6

KLEEN
SHARPENERS
SHEFFIELD'S SHARPEST
FITS ALL 3 PEG HOLDERS


The AUTOMATIC WEIGHING
AND PACKING MACHINE COMPANY

Proprietor: Arthur R. Smith - 23 years Southall & Smith, Ltd.

Invite your enquiries for Machines to weigh or fill Powdered or Granular Materials, Seidlitz Powders, Face Powders, Epsom Salts, etc. Repairs, Overhauls and Spares for any make or type of Machine.

'Phone: CEN. 1069 22 CAROLINE ST., B'HAM. 'Grams: Autopack, B'ham.

Now - A PEROXIDE THAT
KEEPS ITS STRENGTH



● A specially stabilised 20-volume Peroxide of Hydrogen. 2/- per bottle.

Manufactured by RAPIDOL LIMITED. 32 DOVER STREET. LONDON. W.1.

QUICK-SELLING!
—and a big money-maker!

Stock up with Pifco Sharpex razor blade sharpeners! There is a definite demand for this simple—and inexpensive instrument—a saver of time and money. Sales are rapidly increasing all over the country. Without Pifco Sharpex your shaver's stock is definitely incomplete.

Order up to-day. De luxe 3/6 each. Popular 2/- each. Subject to usual PIFCO trade discount.

PIFCO LTD., Shudehill, Manchester, or 150 CHARING CROSS ROAD, LONDON, W.C.2





"TIDY-WEAR"
CAP SHAPE
HAIR-NETS

RETAIL 3 FOR 1/- IN POCHETTE. WHITE or GREY DOUBLE PRICE from

MAY ROBERTS, COCKBURNS, GLASGOW
SMITH & SON, NORWICH, Etc.

The World's most popular Hair-Net



AZYMA
CACHETS
FRENCH, MORSTADT,
and the DRY CLOSING SERIES

3/3 per 1,000

ALL SIZES (Carr. paid on 4,000)

Special quotations for quantities and for printing

Write for Samples to
CICERO S. CLARK, Sole Agent
12 RICHMOND ROAD W.2



SPECIALISTS IN
TOILET BOTTLES
WHOLESALE ONLY

FOR BETTER BOTTLES
- better see
BARNETT

JACK L. BARNETT, LTD.
18 BASINGHALL ST., LEEDS 1 Phone: 28447

DRAKE & DAHM (Translators) LTD.

ALL LANGUAGES ALL SUBJECTS
SCIENTIFIC AND TECHNICAL
A SPECIALITY

PHONE: CENTRAL 3989

36 & 37 UPPER THAMES STREET, LONDON, E.C.4

F. MAUND & E. BERG (SHOWCASES) Ltd.
SHOPFITTERS & SHOPFRONT BUILDERS
175/9 OLD STREET, LONDON, E.C.1
Telephone: Clerkenwell 1782/3

are offering for sale, at competitive prices, an extensive and exceptionally full range of Chemists' Fittings, Second-hand and New.

Chemists' Fittings

When you want Shop Fittings it will pay you to send to

GEORGE COOK
The Chemists' Working Shopfitter.
27 Macclesfield Street, City Road, LONDON, E.C.1
40 years' experience Phone: Clerkenwell 5371 Rough Sketches free

THE PRESCRIBER

The issue for June, 1935, contains *inter alia* an article on "Acridine Emulsion," by Dr. J. W. Tomb; also the latest information on Antiseptics.

Price 2s. post free. Annual Subscription 20s. post free

"THE PRESCRIBER" OFFICES, 65, Castle Street, Edinburgh 2

A DELIGHTFUL NEW NUTRITIOUS STIMULANT
—a pleasant combination of milk, eggs, and really good wine. A perfect tonic with an alluring taste. This is a profitable line most attractively packed.

'VINTEGG' EGG WINE

THE ORIGINAL

Ask for descriptive literature and special terms

JOSEPH HOBSON & SON, Ltd., Regent St., Leeds 2

D.D. & POISONS REGISTERS
PRESCRIPTION BOOKS, &c.
FOR CHEMISTS, DOCTORS AND HOSPITALS.
30 Patterns. List on application.

H. T. WOODROW & CO. Ltd., 3 Cook St., LIVERPOOL
'Phone - - - Bank 730.

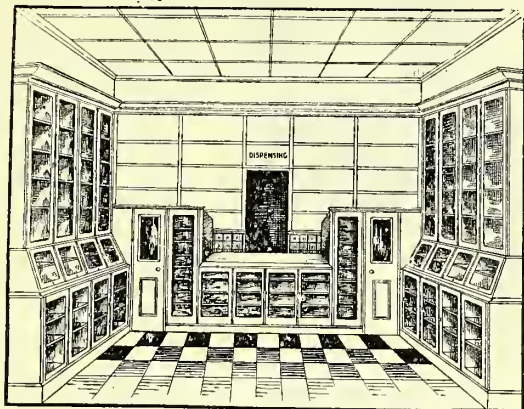
CONTRACEPTIVES

We have been supplying Contraceptives of all kinds now for over 30 years and our well-known Safeguard & Empire Brands are still as popular as ever. THESE FACTS SPEAK FOR THEMSELVES and prove the confidence we have secured which is the fundamental principle in selling these goods. All our Brands are guaranteed to be of the finest manufacture. Write for complete Price List and Samples.

BURGE, WARREN & RIDGLEY, LTD.
91-92 Great Saffron Hill, London, E.C.1

THE QUALITY OF YOUR FITTINGS

establishes your reputation !



Keen competition on every side renders it more essential than ever that the modern Pharmacy should be well equipped on up-to-date lines, yet at the same time preserving that professional dignity associated with the craft.

Having specialised on this class of work for generations, we have a wide knowledge of Drug Trade requirements—we shall be glad to quote and advise on any job.

Quality fittings of which you can be proud are our speciality. Keenly competitive prices are at your disposal and speedy completion of any job is ensured.

"Stock lists" are available for urgent orders.

May we have your enquiry ?

AYRTON - GRAHAM LTD.
24 BENSON STREET, LIVERPOOL, 1

Telephone : Royal 1318

AYRTON - GRAHAM FITTINGS

are quality fittings !

WESTMINSTER COLLEGE OF PHARMACY

Founder :
G. S. V. WILLS, Ph.C.

Principal :
P. H. WOODNOTH, Ph.C., F.C.S.

DAY CLASSES

Summer Revision Courses commence on July 29th and Aug. 7th. Next Session will commence on October 2nd for Preliminary Scientific and Qualifying Examinations.

POSTAL COURSES

Preparatory Courses in all Subjects.
Fee £1-1-0

Special Test Papers are available for revision.

*Prospectus for Postal or Day Classes
on application to the Principal :—*

190 Clapham Road, London, S.W.9

*Phone : Reliance 3728

**HAVE YOU YET
FIXED UP A
'GRANVILLE' FILM
AGENCY ?**

Since our advertisement asking for 500 agents in Great Britain we have been busy arranging agencies all over the country. If you have not yet fixed up, write at once and be in time to link up with national publicity for Granville films.

**FREE FILMS
MAKE MORE
BUSINESS
EVERY WAY**

Full particulars and Trade Terms from
BLUNDELL & CO. (LIVERPOOL), LTD.
119 LIVERPOOL RD., GT. CROSBY, LIVERPOOL, 23

LET A
BETTS'
PRODUCT
IMPROVE
YOURS!

METAL
BOTTLE
CAPSULES

Any size. Any
colour and
stamping

COLLAPSIBLE
TUBES

plain or
coloured

PERFUMERY
SPRINKLER
CORKS

TIN AND
LEAD FOILS

Our quality and
service are unsur-
passed in the trade
—test us with your
inquiries

New Zealand Representatives
NEIL CROPPER & Co., Ltd.
Post Box 74, Dilworth Bldg.
Auckland, New Zealand

ALL
BRITISH
MADE

BETTS & Co.,
LIMITED
1 WHARF ROAD
CITY ROAD LONDON N.I.

Fluted Bottle Caps of Pure Aluminium for Dispensing Chemists



This cap re-
places the old
paper cap. It
is more attrac-
tive, more
hygienic, and
quicker to
apply.

Sole Concessionaires for U.K.:

S. MAW, SON & SONS LTD., London, E.C.1

Sole concessions granted to one Wholesale
Druggist Sundries House of high standing in every
country of the world. Applications welcomed.

Patentees:

ANDERSEN & BRUUN'S FABRIKER, Ltd.
COPENHAGEN F. DENMARK

Cables: Kapsel, Copenhagen



The famous "Town Talk" Liquid Silver Polish, Silver Plate Cloth, Liquid Pewter Polish, Chromium Plate Cloth, and Cut Glass Cloth, afford you five ways to a woman's purse. They are consistently advertised in women's newspapers and journals, and their qualities make them quick-selling, repeat-order lines.

Push the "Town Talk" 5, they yield a good profit and bring customers into your shop.

ORDER DIRECT OR FROM

MANCHESTER:
James Woolley Sons &
Co., Ltd.

LIVERPOOL:
Ayrton, Saunders & Co.,
Ltd.
Brooks & Warburton, Ltd.

LEEDS:
Goodall, Backhouse & Co.

LONDON:
May, Roberts & Co., Ltd.

LEICESTER:
E. H. Butler & Son.

THE TOWN TALK POLISH CO. MANCHESTER



THROUGH 5 REIGNS

George IV.
William IV.
Victoria
Edward VII.
George V.

1826

Saul Josephs founded this firm and specialised in chemists' shopfitting.

1840

Liners first began plying Atlantic.

1851

Great Exhibition held in the Crystal Palace in Hyde Park celebrated triumph of British supremacy in industry.

1887

Queen Victoria's Jubilee.

1897

Kitchener regains Sudan for Britain.

1902

Great Britain goes "wild" on Mafeking Night. Mr. P. R. E. Josephs serves in South Africa with C.I.V.s.

1914

Britain enters the War.

1918

Signing of the Armistice once more proves British supremacy.

1926

The Great Strike paralyses British commerce.

1935

Depression over, Britain once again prepares to enjoy herself.

*S*INCE 1826, when George IV. was on the throne, the house of Philip Josephs & Sons has made steady progress. During our 109 years of business we have seen great changes, not all of which seemed for the best. But by moving with the times and taking care to maintain our reputation for fair and square dealing we are happy in the knowledge that the Jubilee of our beloved King George finds us still the foremost shopfitting specialists to the Pharmaceutical profession.



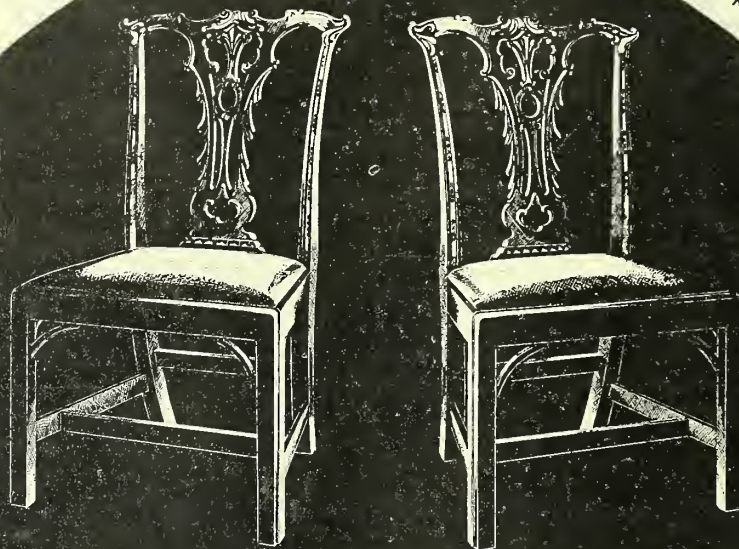
Philip Josephs & Sons Ltd

Phone :
CLERKENWELL 2191

PHARMACY FITTERS FOR OVER A CENTURY

90 & 92 ST. JOHN STREET, CLERKENWELL, LONDON, E.C.1

THEY APPEAR THE SAME



Appearances are deceptive. To the untrained eye it is not always easy to distinguish between the genuine product and the imitation. While they appear the same, the difference lies in the quality and manufacture. For over 20 years MORFI products have led the world in the manufacture of mechanical contraceptives, using only the very finest quality materials available and manufacturing under the most progressive and scientific conditions. Chemists can build up confidence among their customers by the wise recommendation of MORFI products and they can place the most implicit trust in these products.

MORFI

TRANSPARENT 2/- per gross. RETAIL 2/6 pkt. of 3
IVORY - - 24/- " " " 2/- " " 3

FROMMS ACT - TROPIC-PROOF
TRANSPARENT

36/- per gross. RETAIL 3/- per pkt. of 3

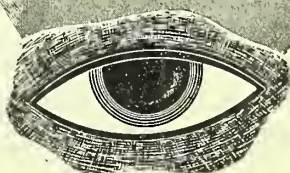
TROPEX - TRANSPARENT

18/- per gross. RETAIL 1/6 per pkt. of 3

ALL THESE PRODUCTS
ARE HOT VULCANISED
AND WILL KEEP FRESH
FOR 3 YEARS IN ANY
CLIMATE

STOCK AND PROFIT
BY SELLING THESE
"CHEMISTS ONLY"
PRODUCTS

HERBERT
ALDWYCH HOUSE,
TELEPHONE:



FROMM
LONDON, W.C.2
HOLBORN 487,0

WHIFFEN

ALKALOIDS AND FINE CHEMICALS

BROMIDES

IODIDES

DRUG GRINDING, ESSENTIAL OILS, VERMILION

TELEGRAMS: WHIFFEN, LONDON

TELEPHONE: FULHAM 0037



GRAND PRIZES

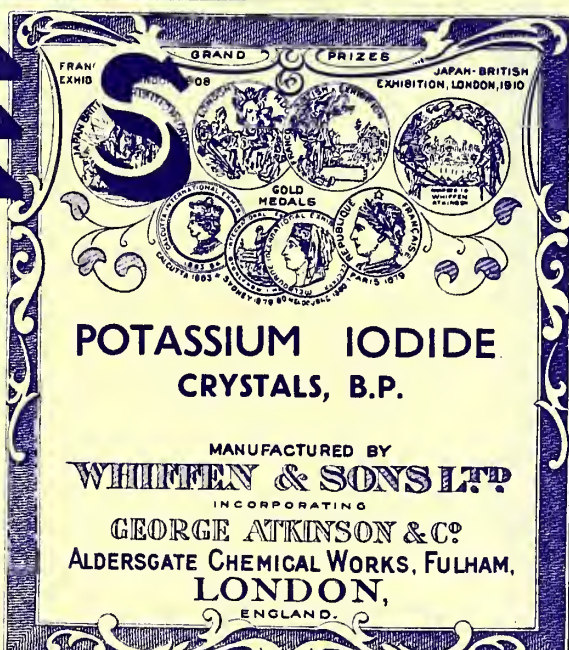
FRANCO-BRITISH EXHIBITION, LONDON, 1908

JAPAN-BRITISH EXHIBITION, LONDON, 1910

GOLD MEDALS

POTASSIUM BROMIDE
CRYSTALS, B.P.

MANUFACTURED BY
WHIFFEN & SONS LTD.
INCORPORATING
GEORGE ATKINSON & CO.
ALDERSGATE CHEMICAL WORKS, FULHAM,
LONDON,



GRAND PRIZES

FRANCO-BRITISH EXHIBITION, LONDON, 1908

JAPAN-BRITISH EXHIBITION, LONDON, 1910

GOLD MEDALS

POTASSIUM IODIDE
CRYSTALS, B.P.

MANUFACTURED BY
WHIFFEN & SONS LTD.
INCORPORATING
GEORGE ATKINSON & CO.
ALDERSGATE CHEMICAL WORKS, FULHAM,
LONDON,
ENGLAND.

WHIFFEN & SONS LIMITED, FULHAM, LONDON, S.W. 6

Specialists in the
Manufacture of
Pills and Tablets
since 1839



Arthur H. Cox & Co. Ltd.
Manufacturing Chemists
Brighton
England



CONFERENCE SUPPLEMENT

BRITISH PHARMACEUTICAL CONFERENCE BELFAST, 1935

The Chemist and Druggist

presents the latest News and Pictures

Proceedings

THERE was a very large attendance in the Central Hall of the Belfast Municipal College of Technology on Monday afternoon, June 24, when the Conference was opened. The president of the Conference (Dr. F. W. Crossley-Holland) was in the chair; and accompanying him on the platform were the Rt. Hon. the Lord Mayor of Belfast (Sir Crawford McCallagh, Bt.), Mr. E. Saville Peck (president of the Pharmaceutical Society of Great Britain), Mr. T. Marns (vice-president), Mr. Fred Storey (president of the Pharmaceutical Society of Northern Ireland), Mr. F. W. Doolan, M.A. (Vice-Chancellor of the Queen's University of Belfast), Mr. H. N. Linstead (secretary of the Pharmaceutical Society of Great Britain), Mr. D. L. Kirkpatrick (secretary of the Pharmaceutical Society of Northern Ireland), Mr. Herbert Skinner, Mr. D. Lloyd Howard, Mr. F. W. Gamble, Mr. P. F. Rowsell, Mr. C. H. Hampshire, Mr. R. R. Bennett, Mr. J. H. Franklin, Mr. C. R. Boyes, Mr. T. Edward Mescher (treasurer of the Conference) and Mr. W. J. Beardsley. In the body of the hall we noticed Mr. John Keall (ex-president of the Pharmaceutical Society of Great Britain), most of the members of the Pharmaceutical Council of Northern Ireland, and Mrs. Fred Storey. At 2.30 the buzz of conversation ceased with the arrival of the official party at the main door, headed by the civic mace-bearers of Belfast, who escorted the Lord Mayor, the chairman and the president of the Conference to the platform amid applause.

The proceedings were opened by THE CHAIRMAN, who said his first pleasant duty was to ask their attention for the Rt. Hon. the Lord Mayor of Belfast.

THE LORD MAYOR, who was received with applause, said: It is indeed a very great pleasure to me that I am present here this afternoon to formally, if I may say so, open your proceedings. It gives me further pleasure, as representing the citizens of Belfast, to extend to you one and all a hearty, cordial, and warm welcome to our city. Belfast for some reason or other is becoming a rather favourite centre for the holding of conferences in connection with various associations. Why that should be so I am not in a position to say, because while I have had the honour during my term of office of extending a welcome to many associations, I am very often met with this argument—that it is hardly safe to come to Ireland. Sometimes the men will come along to Belfast and the ladies stay at home, which is rather unusual in these days, but sometimes

I get letters from the ladies asking me if it is safe to let their men friends come across. (Laughter.) It is perfectly true. (Renewed laughter.) I am glad to tell you you are perfectly safe. You are perfectly all right. I understand you have not been here for thirty-seven years. Somebody is at fault for that to happen. We have many things to interest you here. We have some of the largest industries of the world, centred in the city of Belfast, and I hope you will have time to see around them and see what you can learn in that direction. Apart altogether from our great industries, the scenery within reasonable distance of the city is very fine. I do not know what arrangements you have made, whether you will take your friends around the Antrim coast, to the Giant's Causeway, or not; but you will see if you do some of the finest scenery it is possible to get anywhere. Indeed, I have heard of some visitors coming here, particularly our friends from Scotland, they did not return, they stayed here. (Laughter.) If you will stay here, we will make you welcome. There are many things to be seen, and I do hope your Conference will be of great service to your Society. You have discussed many problems which I know nothing of. As regards taking medicine, I take as little as I can, and when I do get it I like to be assured that it is the best I can have. That is one of the main objects of your Society, I believe.

Now, I am sorry that I am rather in a hurry this afternoon, because I left another function to officially open this Conference, and I have to go back as soon as possible. So far as I am concerned, you do not want to hear anything more from me. All I can do now is to extend to you a very warm welcome and express the hope that you will have a pleasant time and that your meetings will be of great value and interest to pharmacy. If any of you should linger behind to spend a little holiday, let it be a few days or a few weeks, I hope you will thoroughly enjoy it, and that you will carry away with you very pleasant memories and recollections of your visit to the city of Belfast. I hope your Conference will be very successful. (Applause.)

MR. E. SAVILLE PECK (president of the Pharmaceutical Society of Great Britain), in moving a vote of thanks to the Lord Mayor for the delightful words of welcome which they had heard that afternoon, said he would like to take that opportunity of offering on behalf of the Conference their sincerest congratulations to Sir Crawford upon the honour which his



Majesty the King had recently thought fit to bestow upon him. (Applause.) It was a great pleasure to them as pharmacists, many of whom were suffering from an absurd inferiority complex, to hear such words of commendation falling from the lips of one so well qualified to judge of the importance of their calling. The Lord Mayor had mentioned he had welcomed many conferences. He remembered on one occasion a Mayor stating that in the previous week he had welcomed the medical profession, that week he had welcomed the pharmacists and the following week he was going to welcome a conference of undertakers. (Laughter.) He understood that in a few weeks hence the Lord Mayor would welcome the Estate Agents' Association. Perhaps they were going to wind up the affairs of the

corpse. (Laughter.) He had had the privilege of being in Belfast for a few hours, and had an opportunity of looking at some of their glorious buildings, especially the City Hall. Some of them had been into the country around Belfast, some had taken walks up to the hills, and some had played golf on the fine links that they had. Others had taken a steamboat trip down the Lough, but what had most impressed him, and it was borne out by the remarks of the Lord Mayor when he said that they were perfectly safe, on looking round the people in the streets he felt that they must be happy and prosperous



THE RT. HON. SIR CRAWFORD MCCULLAGH,
BART., D.L., LORD MAYOR OF BELFAST.

by their demeanour. All that depended upon the beneficent and efficient work of the City Council headed by the Lord Mayor. As to the Lord Mayor himself he deserved well from his King, because he had been selected as Lord Mayor of the City of Belfast no fewer than eight times. He might perhaps anticipate and take that opportunity of thanking him for the civic reception they should enjoy that evening in the City Hall as there might not be another opportunity of doing so. He thought he had said enough to show that they should pass a very hearty vote of thanks to the Lord Mayor. He noticed that the motto of Belfast was "Pro Tanto Quid Retribamus." What was the meaning of that? "For so much what shall we do in return?" They had heard much of the city and they would hear more of it as they went along, but he was quite sure they could at least in return pass that vote of thanks very heartily to Sir Crawford for having come there that day and in such a warm and friendly way opened their proceedings. He had pleasure in moving the vote of thanks.

MR. T. MARNS (vice-president of the Society), in seconding the vote of thanks, said it gave him very great pleasure to be associated with the president in doing so. It had been his great privilege and pleasure to be in the city on other occasions, and he always looked back with very pleasant memories on the happy times he had spent in Belfast. He felt perfectly sure that all their friends who had not had the privilege of previously visiting the city and who were now visiting it for the first time would return to their homes with very happy memories of a well-spent week. They had to thank the Lord Mayor for coming along that afternoon at some inconvenience to himself to open that gathering, and they also thanked him again for the personal welcome they were going to get from him that evening at the reception in the City Hall. There was a great deal one could say about the wonderful City of Belfast; its great industries, such as shipbuilding and linen, and various other activities. Like other parts of the Empire, it had been for some time under a cloud, but they all hoped that the city would flourish and that its very valuable industries would

flourish. He had much pleasure in seconding the vote of thanks.

The vote of thanks was passed by acclamation.

THE LORD MAYOR, in reply, said he was sorry he could not stay any longer, for, as he had told them, he had to return to another function. He could only reiterate the hope that they would have a very pleasant time and get very valuable work done on behalf of the Association. He was looking forward to seeing them later in the day.

The audience stood as the Lord Mayor was escorted by the mace-bearers from the Hall.

THE CHAIRMAN said he had received apologies for absence from Messrs. A. R. Melhuish, C. E. Corfield, E. T. Neathercoat, F. Ransom, W. A. H. Naylor and Dr. David Hooper. He also announced that there were present no fewer than nine overseas visitors—four from South Africa, one from Southern Rhodesia, one from New South Wales, and three from New Zealand.

THE CHAIRMAN then read his address on "The Relation of Pharmacy to Medicine" (p. 779).

DR. C. H. HAMPSHIRE proposed a vote of thanks to Dr. Crossley-Holland, who, he said, had been a staunch friend of, and had rendered such sterling service to, the Conference for so many years. Members had listened with delight to the address, and by it the chairman had added to his previous services. The subject chosen was one which Dr. Crossley-Holland was well fitted to speak on, and the changes and advances in medicine to which attention had been called must have a profound influence on pharmacy.

MR. R. R. BENNETT, who seconded the vote of thanks, said they all recognised in Dr. Crossley-Holland a particularly brilliant star among the many stars in the firmament of pharmacy. He was delighted to see Dr. Crossley-Holland that afternoon surrounded by his many colleagues and friends. (Applause.) They had all heard with much appreciation an address of great instructive value.

THE CHAIRMAN, in a brief reply, hoped the Conference would mark the birth of a movement which would bring pharmacy and medicine closer together, and that it would make all recognise that they are two expressions of the same thing.

The members were then invited by the Local Committee to take afternoon tea at the Café Royal.

The Social Side

IT was a gracious act of the Local Committee of the Conference not only to arrange for the National Association of Women Pharmacists to hold a gathering of the clans at the Grand Central Hotel on Monday afternoon, but also to invite them to tea. Mrs. Herbert Skinner (president of the Association), after welcoming the members and expressing the thanks of the Association to the Local Committee for their hospitality, called upon Mrs. Storey, president of the ladies' committee of the Conference, who in a happy little speech extended a welcome on behalf of the pharmacists of Northern Ireland to their sister colleagues. It was a pleasantly informal meeting of members whose habitat ranged from Inverness to New Zealand. Among those present were Mrs. Freke, Miss Hodgkinson, Miss Harvey and Mrs. Irvine (London), Miss Carleton (Dundee), Miss Campbell (Inverness), Miss Roberts

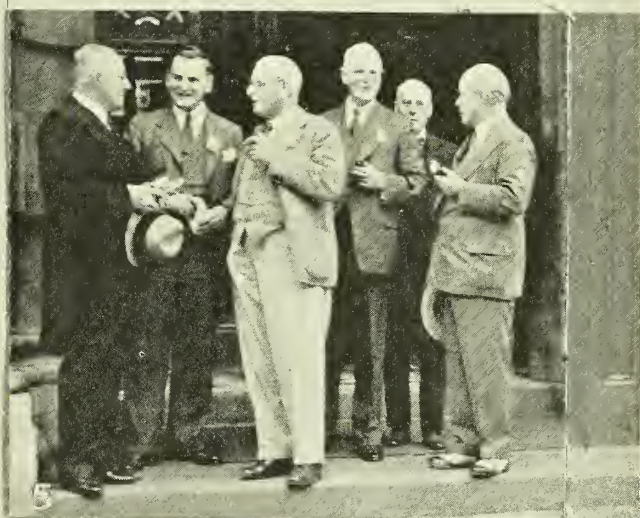
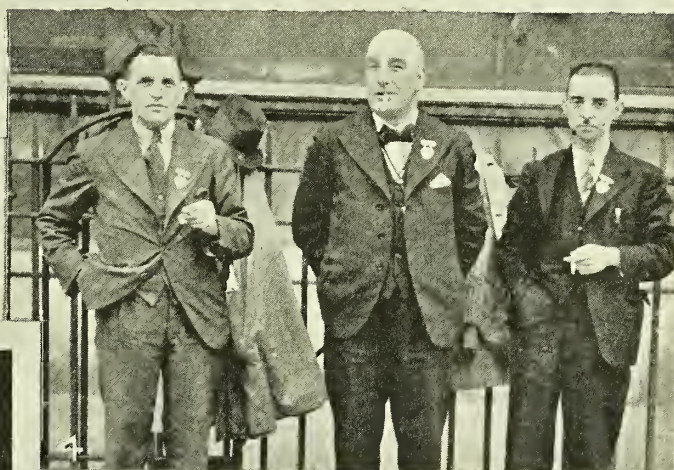
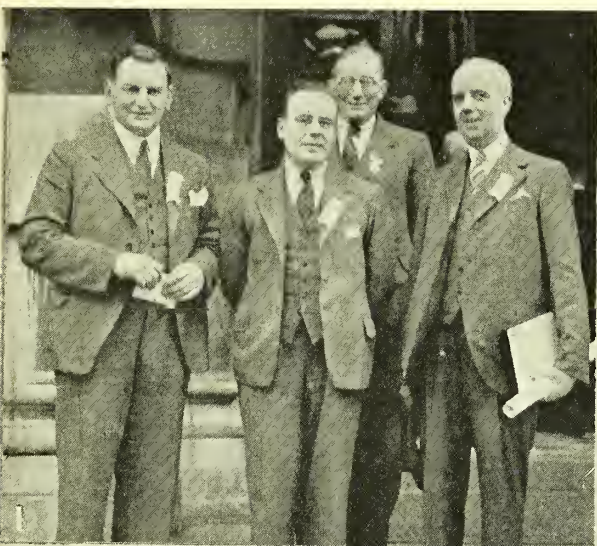


DR. F. W. CROSSLEY-HOLLAND,
CHAIRMAN OF THE CONFERENCE.



CONFERENCE PICTURES

BELFAST 1935

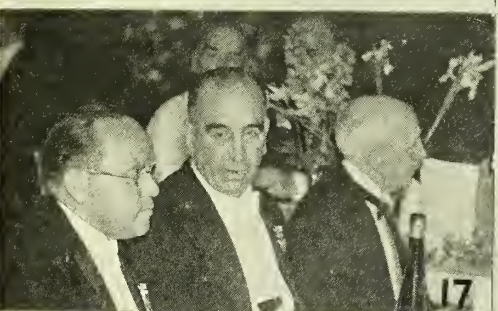
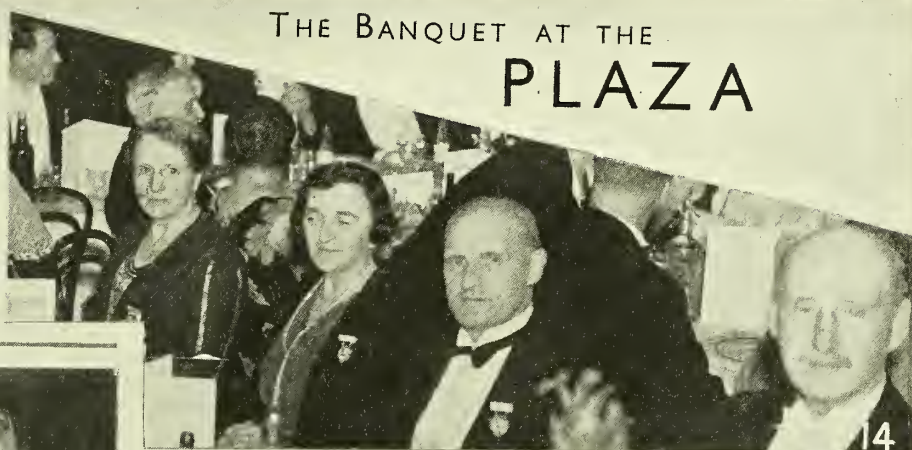
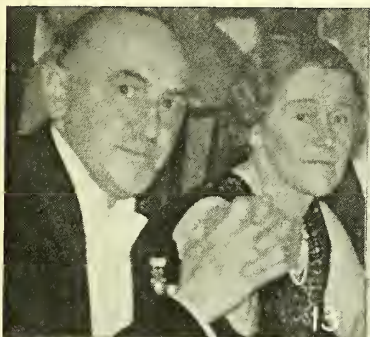




RECEPTION

CITY HALL









(Manchester), Miss Lynch (Hastings). The women pharmacists of Northern Ireland included Mrs. Dwen (secretary, ladies' committee), Miss Murray (Belfast) and Miss Barry (Larne).

* * *

Many visitors crossed over to Belfast on Friday or Saturday and spent the week-end renewing acquaintance with friends domiciled in Ulster or sightseeing, while not a few attended service at the Cathedral. Those travelling from England and Scotland on Sunday came via Heysham or Stranraer. Among those crossing from the former port were two councillors of the Pharmaceutical Society. The secretaries of the Society and the National Pharmaceutical Union and a Scottish contingent chose the shorter sea journey. Though there had been thunderstorms on both railway routes, the cross-channel passage was sufficiently smooth not to cause any casualties.

* * *

Several pharmacies in the city were making special displays of crude drugs, etc., during the visit of the Conference. The main feature was a screen drawing attention to the progress of the profession.

* * *

The welcome by the Lord Mayor and Lady Mayoress on Monday evening, June 24, was a brilliant function, and for such an event there could be no more delightful setting than the City Hall, which was gaily decorated for the occasion. Fortunately, Belfast was not suffering from the heat wave, so that the guests were able to take full advantage of the dance music played by the band of the Royal Ulster Constabulary. During the evening the red, white and blue floodlighting of the City Hall, which was part of the Jubilee celebrations, was switched on in honour of the visitors.

* * *

The ladies' excursion on Tuesday afternoon to Gallaher's tobacco factory was booked up ten minutes before the time for starting, and those enthusiasts who felt they must see the world-famed Gallaher's had to manage a judicious gate-crash into the party by means of a taxi. It was well worth it, and a cigarette is looked upon with fresh interest after seeing its evolution from the huge bales of dried leaves. The first impression was a pleasant one—a large, airy "flat" with over 300 girls in pale blue overalls and caps stripping the stem from the brown leaves so quickly that one could hardly follow their fingers; the stems are dried and ground down for snuff, yes, snuff—tons of it and thousands of tins, menthol snuff, peppermint snuff, light snuff and dark snuff, which we were told is sent all over the world. The girls in each department wear different coloured overalls—in one "flat" where more stripping was being done they wore pale green with red caps, and when we remarked to a foreman on their happy faces he replied, "And why shouldn't they be happy—it's a happy place to work in." The machines which roll and fold and cut cigarettes are wonderful; their output is fifteen millions a day. On leaving, each visitor was presented by Messrs. Gallaher with a box of Du Maurier cigarettes. Amongst the "ladies" who visited the factory we noticed Mr. Connor, of Newry, Mr. Hay, of Aberdeen, and Mr. P. Irvine and Mr. Gwilym Thomas, of London.

* * *

The Conference banquet on Tuesday night, June 26, was a further example of the lavish hospitality of the Belfast chemists. Everyone was happy, everyone thoroughly enjoyed the function, and this in spite of more than a dozen speeches. A message of loyalty and devotion was sent to the King, and the announcement of this by Dr. Crossley-Holland was greeted in such a manner as to leave no doubt as to the unanimous approval of the chairman's action. The toast of the "Government of Northern Ireland" was proposed by Mr. R. R. Bennett, who, in his customary charming manner, spoke of the impressive welcome the Conference visitors had received, and of the encouragement given to industry by the Government. In particular he stressed the work of Sir Dawson Bates on behalf of the pharmaceutical profession. Sir Dawson, who is Minister for Home Affairs, referred to the setting up of the Pharmaceutical Society of Northern Ireland. He said the Government, like all Governments, was accused of making Acts

which were not wanted, but one Act they had brought in, which was wanted, was that for setting up the Pharmaceutical Society. It meant in some ways pulling up the old landmarks, and in that connection it is obvious that many difficulties would arise, and he took this public opportunity of again acknowledging the wonderful help, foresight and courage shown by the members of the pharmaceutical profession in Northern Ireland in coming forward and assisting in making a new Society second to none. While it might be invidious to single out any particular gentleman, as they all helped, he said he would like to mention Mr. Storey, who had devoted so much time and energy.

* * *

Mr. Herbert Skinner was next called upon to propose the "City and Trade of Belfast." After speaking of the importance of the city and its industries, Mr. Skinner continued: "Great as the citizens were in industry and commerce, he had found they had even greater loving hearts," and he was confident that every visitor would have the same feeling. The response was made by the Lord Mayor, the Rt. Hon. Sir Crawford McCullagh, Bt., D.L., whose advent to the microphone was received with musical honours. Sir Crawford said they were proud of the city, which had some of the largest industries in the world—"not the largest pharmacy—but that was not his fault." He revealed that Messrs. Gallaher's tobacco factory paid five million pounds annually in duty to the Government. He then explained how the magnificent City Hall had been built without expense to the ratepayers—mainly through the profits of the municipal gas department.

* * *

"The Pharmaceutical Society of Great Britain" was proposed by Professor E. B. C. Mayrs, M.D., who recalled that his predecessor, Sir William Whitla, started his career as a pharmacist, and then went on to refer to Mr. Saville Peck's efforts for education. Replying, the president of the Pharmaceutical Society said he wished the Society had a gas department to bring in £10,000 a year, and the Lord Mayor's references to criticism of local building schemes sounded quite pharmaceutical. (Laughter.) Continuing, Mr. Peck referred to the relations between the Pharmaceutical Society of Great Britain and the sister societies in the Empire. Was it too much to say that in the dim future there might be an Imperial Pharmaceutical Society, or at least a Conference of the presidents of the pharmaceutical societies in the Empire?

* * *

Dr. F. W. Crossley-Holland, replying to the toast of "The British Pharmaceutical Conference," proposed by Colonel A. B. Mitchell, D.L., M.P., F.R.C.S., said that day was the 72nd anniversary of the birth of the British Pharmaceutical Conference. During its existence it could claim to have made 2,000 contributions to medicine via pharmacy. He trusted that the professions of medicine and pharmacy would come closer together in Belfast, and both become active factors in the practical field of medicine.

* * *

Mr. F. W. Gamble was responsible for the toast of "The Pharmaceutical Society of Northern Ireland." He reminded the members of the Conference that this year the Society attains its eighth birthday. The infant had been given a good start in life and has become a body of vigour and health. Mr. Gamble said his visits abroad had shown him there was a great desire for reciprocity among the societies in the Dominions.

* * *

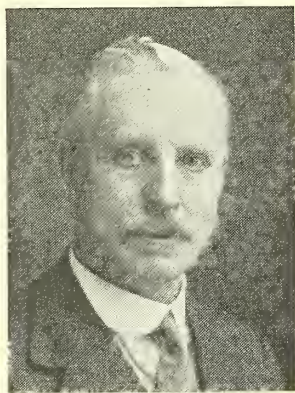
Mr. Fred Storey was received with cheers when he rose to respond. He dealt with the foundation of the Society and the help pharmacists had received from the Government in carrying out the scheme. Representatives of the various interests were gathered together, and the Government found that they had a problem the magnitude of which they had no idea, the question of creating one grade where two grades already existed. However, after prolonged negotiations and many interviews the Minister (Sir Dawson Bates) asked that a small advisory committee be set up comprising two pharmaceutical chemists and two registered druggists. The Act was a model one, and the



Society in Great Britain had adopted some of its principles. In conclusion he paid tribute to Sir Dawson Bates and to the memories of the late Mr. Guiler and Mr. Suffern.

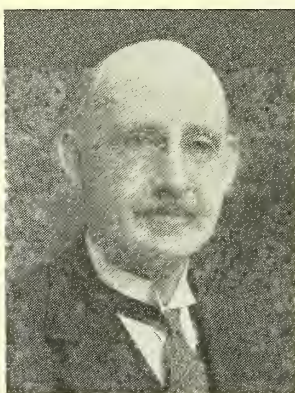
* * *

The toast of "Our Guests" was entrusted to Mr. W. S. Taylor, vice-president of the P.S.N.I. Mr. C. S. Thomson, M.D., medical superintendent of health, and Mr. David Warwick, President of the Pharmaceutical Society of Ireland, responded. Finally the Lord Mayor added a toast which was not on the programme—that of "The Chairman," congratulating Dr. Crossley-Holland on the expeditious manner in which the toast list and musical entertainment had been carried out. The chairman briefly replied and one of the pleasantest social functions of the Conference closed with the singing of the National Anthem.



MR. D. L. KIRKPATRICK

Secretary, Pharmaceutical Society of Northern Ireland



MR. R. I. EDWARDS

Treasurer, Local Committee

One of the outstanding features of the Belfast Conference was the exceptional interest taken in the visit by the local Press. Morning and evening detailed reports appeared of the previous day's functions, and some excellent photographs were published.

* * *

The ladies' excursion on Wednesday morning looked unpromising. After a night of thunder, lightning and rain the day opened gloomily. However, the ladies and a fair sprinkling of the men were undaunted and the coaches soon filled up for a beautiful and interesting run along Strangford Lough to Bangor. The main objects of interest en route have already been fully described in the *C. & D.*, but the points most popular appeared to be the Scrabo Memorial Tower, the old town cross of Newtonards, the "butterlump" stone and the Abbey (at Greyabbey) built by the daughter of the King of Aran and wife of Sir John de Courcy. A short halt was made at Donaghadee, and then, passing Groomsport (the Port of the Sad Man), we reached Bangor, admired the yachts in the harbour and wanted to explore the Abbey Church. But there was no time, for everything was run smoothly but efficiently according to schedule. One feature at Donaghadee had an interest for everyone. Lying off the town are three islands and on the largest of these Mr. Fred Storey (the popular president of the Society of Northern Ireland) has his summer home. The party were shepherd back to Belfast in good time for the ladies to change into garden party garb and lunch at the Plaza, prior to setting off for Stormont.

* * *

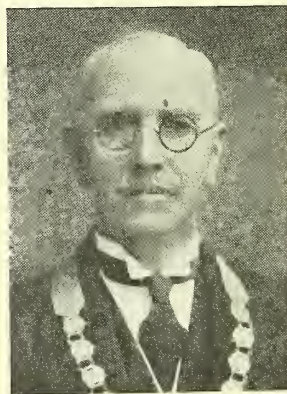
The weather on Wednesday afternoon brightened up beautifully and the great majority of the "Conferencers"—ladies as well as gentlemen—decided to visit Stormont. On arrival at this magnificent building a hearty welcome—more than the usual stereotyped greeting—was accorded to everyone by the Deputy Premier (Mr. H. M. Pollock), who seemed to have a special word for every individual visitor. With him was Sir Dawson Bates, the Minister of Home Affairs, with whom we had already

made acquaintance at the banquet on the previous evening. A series of guides took parties over the whole of the beautiful building explaining in detail the construction, lighting and modern gadgets for the furtherance of debate quite unknown to ordinary Houses of Parliament. Afterwards two large marquees on the lawns in front provided in their interiors the refreshments which were so welcome after the Parliamentary proceedings had ended.

* * *

The first of the two delegates' meetings was held on Tuesday afternoon, June 25, Mr. E. Saville Peck presiding.

THE PRESIDENT, in his opening remarks, commented on the new arrangement which was being tried experimentally this year for the first time and was free from the disadvantages which he had just outlined (that the Branches had no voice in the choice of subjects or of speakers to introduce them). The Council hoped that the result would be to cause the delegates' meetings to be regarded as the open forum of pharmacy, and that they would be of benefit to pharmacists throughout the country. Two consequences that would follow if the delegates' meetings were continued permanently on the new lines were (1) that there would be placed on record for future reference and for all who wished to see, both inside and outside pharmacy, the considered judgments of a representative gathering of pharmacists upon a wide range of subjects affecting their calling. A declared body of pharmaceutical opinion would be built up which could be appealed to when it is desired to know the views of the pharmaceutical community, and which would include questions of conduct and ethics and would establish standards of practice for the calling. (2) The second consequence would be the increased assistance rendered to the Council in the discharge of their responsibility for conducting the Society's affairs.



MR. FRED. STOREY

President, Pharmaceutical Society of Northern Ireland



MRS. FRED. STOREY

The following are the descriptions of the photographs on previous pages:—

- (1) Messrs. Esler, McGregor, Boyle and Moore.
- (2) Mrs. Hodgson, Mr. Smith and Miss Smith.
- (3) Three visitors.
- (4) Messrs. L. W. Jones, D. A. Bryan and E. Owen.
- (5) Dr. Crossley-Holland, Mr. Esler, Mr. J. H. Franklin, Mr. R. R. Bennett, Mr. H. Skinner and Mr. F. W. Gamble.
- (6) Receiving the Lord Mayor.
- (7) The Lord Mayor at opening session, June 24.
- (8) Mr. and Mrs. Peter Irvine.
- (9) Some of the Scottish contingent.
- (10) Mr. T. Edward Lescher and friend.
- (11) A group including Mrs. Storey and Mr. David Warwick.
- (12) On with the dance! A "band's-eye" view.
- (13-20) Some personalities at the banquet.
- (21) A member "botanises."
- (22) A ladies' excursion.
- (23) A group of Leeds ladies.
- (24) Mr. J. E. Connor, Newry.
- (25) At the tea table.
- (26) Mr. G. H. C. Rowland, Edinburgh.
- (27) Mrs. Storey and friend.
- (28) At the Zoological Gardens.

The CHEMIST AND DRUGGIST SUPPLEMENT

This Supplement is inserted in every copy of The Chemist & Druggist

28 ESSEX STREET, LONDON, W.C.2

JUNE 29,
1935

ADVERTISEMENT TARIFF

ALL ADVERTISEMENTS are **PREPAID**, so that remittance must accompany instructions in each case. If it be necessary to telephone or telegraph an urgent announcement this may be done, provided the money is telegraphed at the same time.

BUSINESSES WANTED and for **DISPOSAL**, **PREMISES TO LET** and **FOR SALE**, **PREMISES WANTED**, **PARTNERSHIPS**, **GOODS** for **SALE** and **AGENCIES**—6/- for 50 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

SITUATIONS OPEN—6/- for 40 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

SITUATIONS WANTED—2/- for 18 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

LEGAL NOTICES, **TENDERS**, **AUCTIONS**, and all specially-spaced announcements, 1/3 per nonpareil line (12 lines = 1 inch single column). (Box No., 1/- extra.)

MISCELLANEOUS (Wholesalers' Section) for odd and second-hand lots—10/- for 60 words; 1/- for every additional 10 words or less. (Box No., 1/- extra.)

EXCHANGE COLUMN (for Retailers, etc.)—Twopence per word, minimum 2/- (Box No., 1/- extra.)

THE CHEMIST & DRUGGIST, 28 Essex St., Strand, London, W.C.2

Telephone: Central 6565 (8 lines).

Telegrams: "Chemicus, Estrand, London."

CLOSING FOR PRESS

must reach us
not later than

FIRST POST THURSDAY MORNING

All advertisements intended for
insertion in this Supplement

ORRIDGE & CO.

56 LUDGATE HILL, E.C.4

ESTABLISHED 1846

Telephone Nos.: CITY 2283 & 7477

May be CONSULTED at their Offices on MATTERS of SALE, PURCHASE & VALUATION

We make no charge to purchasers, and invite intending buyers to communicate with us, stating their requirements

1.—**CITY BUSINESS**.—Present returns £55 weekly; old established; rent, inclusive of rates, £250 per annum; held on lease; price £1,400 or near offer, or valuation terms entertained.

2.—**KINGSTON (NEAR)**.—Cash Retail Business; returns under management last year, £2,285; double-fronted shop with living accommodation; rent £100; held on lease; price about £1,650.

3.—**MIDDLESEX (SUBURBAN)**.—Old-established Business producing net profit of £1,000 per annum; good house and lease; further particulars supplied on receipt of a Banker's reference.

4.—**SURREY**.—Middle-class business producing net profit of approximately £400 per annum; double-fronted shop and good living accommodation; rent £98; long lease; price £1,100.

5.—**BROCKLEY**.—Old-established Business returning £20 per week, and offering scope for increase; net rent £59 per annum, which includes shop and dwelling house; stock and fixtures worth approximately £580; first reasonable offer will be accepted.

6.—**LONDON, S.E.**.—Old-established Business with good Optical connection; returns, 1934, £1,716; neglected on account of ill-health; double-fronted shop with flat over; new lease at £100; price £1,200 or valuation terms entertained.

7.—**E. LONDON**.—Middle-class Business with Kodak Agency; returns, 1934, £1,673; net profit £430; rent £2 5s. weekly inclusive; price £650; no offers.

8.—**WIMBORNE**.—For immediate disposal, Good-class Dispensing and Family Retail Business; returns average £27 weekly; modern living accommodation over with bathroom, etc.; price for immediate sale, £300.

9.—**S. LONDON (SHOPPING THOROUGHFARE)**.—Neglected Business occupying imposing corner site; returns last year, including radio, etc., £3,265; scope to more than double this figure; long lease; moderate rental; price by negotiation.

10.—**DULWICH**.—General Retail Business; established 54 years, and until recently conducted as a Drug Store; net profit, including remuneration from Post Office, about £450 per annum; eight-roomed house; rent £75, rising to £80; long lease; rates £28; price £1,250, £1,000 down and balance by instalments.

11.—**WORCESTERSHIRE**.—Old-established Business returning between £4,000 and £5,000 per annum; large premises; rent £350; stock and fixtures worth over £3,000; further details to genuine purchasers on receipt of a banker's reference; vendor retiring.

12.—**ESSEX COAST**.—Very old-established Business; returns under management, between £1,500 and £1,600 per annum; good prices; main road position; rent £110; long lease; valuation terms entertained.

13.—**KENT**.—Country Business with modern house and half-acre garden with three lawns, tennis court, orchard, etc.; returns about £1,200 per annum; accountant's figures; price required for business about £800; price of property about £1,400.

14.—**GLOUCESTERSHIRE**.—Pretty locality near the Wye; family retail business, mostly cash; returns £1,390, increasing; net profit last year, £425; rent £30 per annum; house available; price all at £800; trial allowed to approved purchaser.

15.—**BERKSHIRE**.—Middle-class Retail Business; returns for 1934 exceeded £1,000 under management; double-fronted corner shop with living accommodation over; fair-sized garden; long lease; price £650.

16.—**PLYMOUTH (NEAR)**.—Light Retail Business; returns under management £16 per week; excellent house available; rent of shop £1 weekly; no near opposition; price £500 or near offer.

17.—**MIDLAND SPA**.—Old-established Business for sale on account of ill-health, and vendor wishing to retire; returns last year, £1,527; gross profit 38 per cent. to 40 per cent.; very good house in picturesque surroundings; new lease will be granted at £100, or the property may be purchased; price required, £200 for goodwill, plus stock and fixtures at valuation.

18.—**KENT (ABOUT 15 MILES OUT)**.—Medium-class Business; established 1919; returns last year, £1,147; double-fronted shop with flat over; rent £65; long lease; offers invited.

19.—**S.E. COAST**.—Very old-established Business, producing net profit of approximately £400 per annum; five-roomed house; new lease at rent to be agreed; price £826.

20.—**W. NORWOOD**.—Main-road Business with increasing turnover; 20 years' lease; rent £75; price £350, £200 down and balance by instalments.

21.—**MEDWAY**.—Old-established working-class Business; returns about £1,425 per annum; new 21 years' lease at moderate rent; good house; domestic reasons make sale imperative; price about £650.

22.—**CLAPHAM JUNCTION**.—Old-established Drug Store, offering scope for considerable development; net profit about £200; rent £85, on lease; living accommodation; price £525.

Chemists' Transfers, Valuations for Sale, Stocktaking & Probate

Special Terms for Income Tax Valuations and Preparation of Accounts by Qualified Accountants.

ERNEST J. GEORGE & Co.

Bank Chambers, 329 High Holborn, London,
Telephone Nos. : Holborn 7408 & 7497 (2 lines) **W.C.1**
15 Bridge Street, Walsall Telephone : Walsall 3774

Lancashire and District Representative : Mr. E. BROWN, 21 Davenport Road, Hazel Grove, Stockport. Telephone : Great Moor 1405

Correspondence, mutually confidential, is invited from prospective purchasers of the following businesses at present available for purchase.

(C1) MIDDLESEX.—Old-established excellent profit-earning business situated in growing area; turnover approximately £2,600 per annum; net profit to owner-proprietor £650/£700; low rental; long lease; price £2,250 all-at, or near offer.

(C2) ESSEX.—Progressive up-to-date pharmacy with six-roomed flat above; turnover for last financial year £2,529; net profit to owner-proprietor approximately £600; large N.H.I., and good private dispensing connection; reasonable rental; price asked £1,775 including stock and fixtures estimated at £1,075; offers considered.

(C3) LONDON, S.W.—Established working-class business for disposal owing to retirement; turnover approximately £2,000 per annum; gross profit about 43 per cent.; large panel (over 1,000 scripts per month); premises situated in busy thoroughfare; reasonable purchase price.

(C4) STREATHAM (NEAR).—Main road lock-up pharmacy with good optical connection; turnover approximately £1,850 per annum; excellent position and good scope for increase; price about £1,350, including stock £500; well recommended.

(C5) RAYNES PARK.—Excellent profit-earning cash business with definite opportunities for further development; turnover approximately £2,300 per annum; net profit upwards of £600; reasonable rental including living accommodation; price by negotiation.

(C6) KENT.—Village pharmacy entirely unopposed, showing steadily increasing returns; freehold, which includes large orchard-garden with lawn, etc., also available; present returns £1,350-£1,400 per annum; excellently adapted to chemist seeking semi-retirement; reasonable purchase price; owner, who is a comparatively young man, wishes move to a more progressive centre, this business being situated in the heart of the country, amid rural surroundings.

(C7) BRADFORD.—Progressive up-to-date pharmacy with moderate living accommodation, at present sub-let; increasing turnover; net profit for last financial year, £322; low rental; excellent prospects; price £700, including stock £300.

(C8) WORCESTERSHIRE.—Unopposed lock-up pharmacy at present under management; good scope for increase over the present returns, which are between £14 and £15 per week; low rental; price £350, including stock £250.

(C9) BIRMINGHAM SUBURB.—Up-to-date pharmacy with excellent modern house, situated in rapidly-increasing residential area; certified turnover for last financial year, £1,365; net profit £375; no near opposition, or possibility of same; price £1,000, or nearest offer.

Valuations for transfer, probate, income tax, etc., promptly executed at economical rates.

BERDOE & FISH

CHEMISTS' VALUERS AND TRANSFER AGENTS,
41 Argyle Square, KING'S CROSS, W.C.1

(One minute from St. Pancras and King's Cross Stations.)

1.—SURREY.—Old-established Business; in good residential town; main-road position; returns £1,400; net profit £300; audited figures; scope in younger hands; well stocked; same hands many years; price £1,200 or near offer.

2.—HOME COUNTY (25 miles out).—Good Middle-class Cash Retail; in main-road position of important town; returns about £30 weekly; plenty of scope; large shop with house attached; illness compels sale; price £850 or offer; personally recommended.

3.—ESSEX COAST.—Light Family Retail; returns £1,363; net profit £335; audited books, attractive corner pharmacy, with modern flat over; stock worth over £400; price £850 or valuation terms arranged.

4.—BEDS.—Good Medium-class Business, in small market town; present returns £18 weekly, increasing; growing district; house attached; stock worth £250; price £375 or best offer.

5.—SOUTH COAST.—Good-class Business, pleasantly situated on sea front; returns average £20 weekly; no near opposition; nice house and garden; long lease; price £50 plus valuation, in all about £400.

6.—KENT COAST.—Sound, Light General Retail, with Photographic; steadily increasing; returns over £900, season just beginning; attractive shop with modern flat; well stocked; price £500 or near offer.

7.—LONDON (Essex Suburb).—Well-established Light Cash Retail, with good Panel; returns last year £1,631, under manager; main-road position; rent £90; good house; stock and fixtures worth about £700; price £900 or offer; strongly recommended.

8.—WIMBLEDON.—Light Cash Retail, in good position; returns about £1,100, increasing; audited books; good house and garden; stock and fixtures worth over £400; price £655 or offer.

9.—LONDON, E. (Death Vacancy).—Sound Profitable Business, under management and steadily increasing; returns £1,379, including £240 N.H.I.; net profit £344; modern fitted shop; good stock; price, with freehold property, £1,725 or offer; £700 mortgage transferable; strongly recommended.

10.—BAKER STREET (near).—Profitable Light Family Retail; neglected; returns last year over £1,150, net profit £425; scope for increase; low rent; good stock; price £700 or near offer.

11.—PUTNEY.—Profitable Light Family Retail, under management; present returns over £20 weekly; good profits; rent £60; small house attached; stock and fixtures worth about £400; price for quick sale £450; worth attention.

Estab. 1870.

Telephone: Terminus 3574.

S. F. CLARK, F.N.A.A.

CHEMISTS' VALUER & TRANSFER AGENT
34 Marksbury Avenue, Richmond, Surrey

Pharmacists who appreciate personal and confidential Service in matters of BUSINESS TRANSFER, VALUATIONS for all purposes, ACCOUNTANCY, and MORTGAGE requirements, should communicate directly with me.

Uninterruptedly associated with Pharmacy since 1896.

THE ASSOCIATION OF MANUFACTURING CHEMISTS, LIMITED

(Business Agency, Transfer & Valuation Department)
KIMBERLEY HOUSE, and at EXCHANGE CHAMBERS,
Holborn Viaduct, LONDON, E.C.1 2 Bixth St., LIVERPOOL.

PARKIN S. BOOTH, Valuer. Tels.: CITY 3691 (4 lines).
VALUATIONS, SALES OF BUSINESSES. STOCKTAKINGS.
Enquiries Invited.

JOHN BRIERLEY, F.N.A.A.

THE RECOGNISED CHEMISTS' VALUER & TRANSFER AGENT
135 Queen Street, Newton Heath, MANCHESTER

"A Business Built on Merit"

Satisfied clients appreciate My Personal Service, and incidentally have increased my established connection.

"Your Interests are mine" "Low Fees" (Tel.: Failsforth 1913.)

'Grams: "Tomtom M/C" Established 86 years 'Phone: Marple 332
THOS. TOMLINSON & SON
Chemists' Valuers and Transfer Specialists
46 Victoria Street, Manchester 3
(Opp. Woolleys)

Special Offers
Manchester: High-class suburban Retail and dispensing. Returns over £2,000. Excellent living accommodation. Valuation Terms. N. Wales Coast: Returns £1,245. Low rent, lease, splendid house attached. Price valuation of stock and fixtures. N. Wales (Seaside): Family & seasonal dispensing lock-up. Returns £1,793. Price £1,500 approx. Fyde Coast: Cash retail and dispensing. Turnover £1,000, low rent, good living accommodation. Price £550.

Money

is waiting to buy

Your

Business

*Why not sell it?—the market
was never better.*

Let us assist you.

BUSINESSES OF ALL TYPES AND SIZES ARE
URGENTLY REQUIRED. WE HAVE BUYERS
WAITING AND AN EARLY SALE CAN BE
EFFECTED IN A STRICTLY PRIVATE AND
CONFIDENTIAL MANNER.

DON'T MISS THIS OPPORTUNITY

ORRIDGE & CO.

56 LUDGATE HILL, LONDON, E.C.4

Estab. 1846

Phone: City 2283 & 7477

THE ANNIS MEDICAL AGENCY LIMITED

We have ready buyers on our books for sound businesses. If you are contemplating buying or selling a business please consult us. We can be of real help to you.

DIOCESAN CHAMBERS, 51 SOUTH KING STREET, MANCHESTER

Telephone : Blackfriars 2008

'BUSINESSES FOR DISPOSAL.

6s. for 50 words or less ; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

BOURNEMOUTH (near).—Established Cash Drug Store; average weekly takings £30; main-road corner shop in centre of progressive town; good living accommodation; long lease at moderate rent; stock worth £300; about £800 would be considered. 262/502, Office of this Paper.

LONDON.—Manufacturing, with small Retail and Mail Order; exceptional scope for expansion; 1933-4 sales £4,800, with gross profit £2,300; sales increasing; big saving in cost of production this year; own Tablet and Pill Plant; an immediate income of £1,000 assured for energetic man, and several avenues for expansion open; £3,000 needed for purchase outright; banker's references essential; every investigation permitted. Apply P.C.B. 168/3, Office of this Paper.

ESSEX SUBURB.—Old-established Middle-class Cash Retail, with good Panel; main-road position; entirely under management; turnover about £1,650; scope for increase; large shop, good living accommodation, garage, etc.; rent £90, on lease; stock and fixtures worth £700; price £900 or offer. "Genuine," 262/498, Office of this Paper.

LONDON, S.E.—Nice district; Old-established Business; accountants' figures available, averaging £1,000 annually; no N.H.I., but tremendous scope, being nearest to local doctors; double-fronted shop; private entrance; excellent accommodation, garden with rear entrance; low rent and rates; lease; absolutely genuine and worth serious investigation; price £500, inclusive of stock. P.C.B. 167/34, Office of this Paper.

S.E. LONDON.—Branch established about 30 years; Medium-class with small Optical connection; exceptionally well fitted and stocked; corner shop; net profit to owner-manager £350 to £400; with attention should do considerably more; proprietor anxious to semi-retire; valuation terms accepted; good house and garage; property would be sold or new lease granted at moderate rent; please state capital available. 181/1, Office of this Paper.

SOUTHEND-ON-SEA.—Chemist's; Double-fronted Shop, with good living accommodation; low rent; well stocked; trade £20 per week; price £350, all at. Station Estate Office, Prittlewell, Essex.

LONDON Suburb.—Established Chemist Business in good position; stock and fixtures at valuation; goodwill by agreement; rent £160 on long lease, house sublets for £100; freehold obtainable if desired; turnover £1,500, could be increased. 165/52, Office of this Paper.

NORTHAMPTON.—For immediate disposal, Retail Chemist's Business in Abington Street, Northampton; lock-up shop; near centre of the town; rent £75 per annum; takings average £30 per week; low overhead expenses; for disposal on basis of stock and fixtures at valuation. Further particulars from Trustee, Mr. D. H. Jelley, Incorporated Accountant, Drury Chambers, Market Square, Northampton.

WEST END.—Having agreed to purchase a larger business, the vendor requires to sell high-class Business without delay; turnover more than £2,000 and net profit £420; excellent position, near B.B.C.; valuable lease; £1,200 considered, or would discuss valuation basis. Apply Wales, 262/501, Office of this Paper.

DEATH OF OWNER.—Chemist Business for Sale near Bournemouth; growing district; owing to illness of late owner business has not been developed to best advantage; great scope for live man; rent and rates £92 per annum; well stocked; Kodak, etc., Agencies; living accommodation. 180/30, Office of this Paper.

DRUG-PHOTOGRAPHIC STORE (Kodak Agency).—Busy main street; well-known seaside resort; double-fronted shop, etc.; living accommodation (let off in flats); rent £150; ideal for Qualified Chemist; same hands 10 years; £900, all at. Gilleys, Agents, 36 Torwood Street, Torquay.

MANUFACTURING and Wholesale Chemists' Business for Disposal; steady turnover and profits; enquiries invited from principals only. 172/23, Office of this Paper.

OLD-ESTABLISHED Business in busy main street; splendid opportunity for energetic man; return capable of considerable increase; sale to company entertained; S.E. Coast town; owner retiring. 165/21, Office of this Paper.

£1,500 WILL Purchase a Cash Retail Business situated in the main street of a North Midland county town certified average net profit for the last three years £580; N.H.I., Prescribing, Optical; excellent house, lease or purchase; owner retiring. 179/30, Office of this Paper.

£550.—ATTRACTIVE Pharmacy, with Selo Agency; taking over £20 per week; plenty of scope for increase; double-fronted shop; well stocked and fitted; moderately low rent and rates; quick sale desired. 180/24, Office of this Paper.

BUSINESSES WANTED.

AN Established Limited Company in the North requires immediately several Sound Businesses showing returns of between £1,500 and £5,000 per annum, with proportionate expenses, and reasonable profits; good prices will be paid consistent with value; any district within 50-60 miles of Manchester considered. Prospective vendors are invited to communicate in strict confidence either with the London or Walsall offices of Ernest J. George & Co., or with the Lancashire representative (addresses, etc., as per second page of supplement).

REQUIRED IMMEDIATELY FOR CLIENT WITH READY CAPITAL.—A Sound Business in the West Country or South Coast with returns not less than £3,000 per annum; living accommodation preferred, but not essential; good price paid. Apply Orridge & Co., 56 Ludgate Hill, E.C.4.

WELL-ESTABLISHED Business required in South of England by Private Chemist; one having a turnover of £30 per week or more and having certified figures; cash transaction. Replies in strict confidence to 179/25, Office of this Paper.

PREMISES TO LET.

CHEMIST URGENTLY NEEDED.—Attractive Block New Shops and Flats to Let, S.E.6; black and cream tiled fronts; ample scope; densely populated area in urgent need of Chemist; no competition; rapid lettings; extremely moderate rents. Apply at once, Owners, F. G. Miller, 80 High Street, Eltham, S.E.9. Eltham 1926.

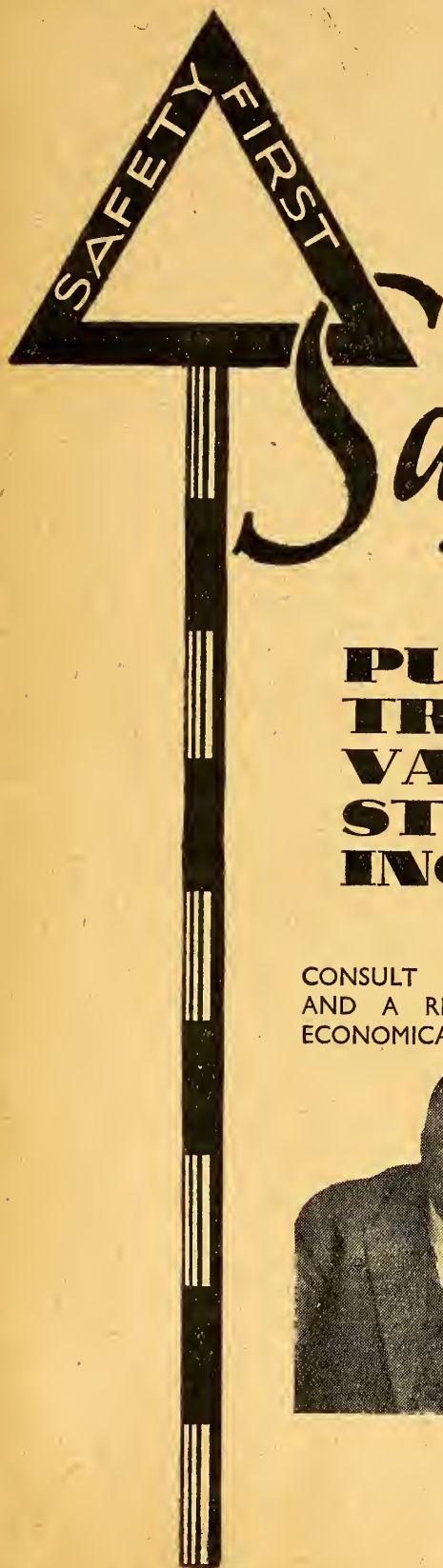
PREMISES

TWO Unique openings for up-to-date Chemist in rapidly developing districts, South Coast. Full particulars, Leggett & Cosham, Chartered Surveyors, 8 Station Parade, West Worthing.

APARTMENTS.

THE HAMPDEN RESIDENTIAL CLUB

FOR GENTLEMEN, Hampden Street, N.W.1. Close to King's Cross and Euston. 300 Bedrooms. 12s. 6d. to 25s. per week, including bath, attendance and boot cleaning. All meals à la carte in dining room. Moderate tariff. Large Club Rooms, Library, Billiards Room, Reading Room and Study for Students. Illustrated Prospectus from Secretary. Euston 2244/5.



CITIUS VENIT PERICULUM, CUM CONTEMNITUR

Safety First

is a sound slogan when
**PURCHASE, SALE,
TRANSFER,
VALUATION,
STOCKTAKING,
INCOME TAX**

are under consideration

CONSULT A SPECIALIST WITH MANY YEARS' EXPERIENCE
AND A REPUTATION FOR THOROUGHNESS COMBINED WITH
ECONOMICAL METHODS



*In whatever part of the Kingdom you
may be, we will give our personal
attention to your requirements*

Ernest J. George
J. & Co.

CHEMISTS' VALUERS

329 HIGH HOLBORN, LONDON, W.C.1
Phones : Holborn 7406-7

BRIDGE STREET, WALSALL

Phone : Walsall 3774

SALE BY AUCTION.

Removed from Stamford Hill.
2 to 5 LITTLE BRITAIN (close to G.P.O.), LONDON,
E.C.

CHEMIST SHOP FITTINGS, Drug Runs, Counters, Wall Showcases, Dispensing Screens, Silent Salesmen, Mirrors, Cash Tills, Glass Shelves, Office Furniture, Typewriters, etc.

B. NORMAN & SON

will Sell by Auction at their Sale Rooms, WEDNESDAY, JULY 3rd, at 12 o'clock.

View Day Prior.

Catalogues on Application.

AGENCIES.

AGENTS wanted with Chemists' connection to sell Royal Physician's Digestive Tea in 4-lb. cartons; agents' commission 2d. per lb. Address "Tea," Wm. Porteous & Co., Advertising Agents, Glasgow.

EXPORT.—Firm with extensive connections among overseas buyers, all markets, seek Agencies for Perfumes, Toilet Preparations, Soaps or similar; on commission basis. Interested manufacturers are invited to write in confidence to 180/5, Office of this Paper.

REPRESENTATIVES required by old-established firm to call upon Hairdressers and Beauty Parlours only in (1) Lancashire, (2) London, (3) Yorkshire, (4) East Midlands, (5) South Coast, to offer attractive Toilet Preparations, both bulk and packed on liberal commission terms; full-time appointment if satisfaction given; additional agency not objected to, but applicants must be in a position to provide satisfactory references. 262/499, Office of this Paper.

WELL-ESTABLISHED Firm with large window on one of the busiest roads in London, where, as an Advertising Medium, goods could be displayed to great advantage, would entertain Wholesale Agency; ample room for storage, packing, etc. 180/16, Office of this Paper.

PARTNERSHIPS.

MANUFACTURING CHEMIST'S BUSINESS NEAR LONDON.—An unusual opportunity occurs for a Qualified or Partly-Qualified Man to acquire a financial interest in a small Established Manufacturing Business owning Valuable Proprietaries of proved selling value and large profits; very sound connection for Veterinary, Disinfecting and Laundry Preparations; full-time occupation, with a seat on the board, available for a suitable applicant; solicitors' references given; debentures will be given if necessary; capital required up to £3,000; salary and share of profits according to investment; would sell outright; no agents, please. Apply in confidence to 180/36, Office of this Paper.

SITUATIONS OPEN.

RETAIL (HOME).

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

BRENTFORD (near Kew Bridge).—Junior Male (age 20-25); immediate, permanent. Apply personally or by letter to A. Wood, Ltd., 116 High Street, Brentford.

EAST LONDON.—Locum, Qualified Lady, for August 1st to 15th; please write full particulars of salary required and copy of testimonials; all applicants not answered in 7 days respectfully declined. 180/29, Office of this Paper.

GRAVESEND.—Qualified Lady Assistant required. Applications, stating age, experience and wages required, together with copies of recent testimonials, to be forwarded to the Managing Secretary, Gravesend Co-operative Society, Ltd., 3 Harmer Street, Gravesend.

HASTINGS.—Qualified Assistant wanted; very light duties; suit semi-retired man. 180/40, Office of this Paper.

LONDON.—Experienced Qualified Assistant wanted; send full particulars, stating age, salary, etc. Apply by letter only to Curtis & Co., Ltd., 79 Baker Street, W.1.

LONDON.—Lady Pharmacist; permanent; Counter and Dispensing. State salary and experience, etc., to 262/504, Office of this Paper.

LONDON.—Young Qualified Male Assistant required immediately; state full particulars of experience, age, salary required and when disengaged. P.C.B. 168/400, Office of this Paper.

LONDON, E.1.—Qualified man wanted for new branch; must be adaptable, good at Window-dressing and interior displays; to a man of honest, persevering character, salary of £4 and commission will be given. Write Pomeroy, 76 Brick Lane, E.1.

LONDON, N.—Lady Assistant for Holiday Relief; Toilet Department; approx. 2 months. Apply, giving particulars re age, experience, salary required, 262/505, Office of this Paper.

LONDON, N.W.—Unqualified Young Assistant required for good-class business; apply with full particulars and salary required. P.C.B. 168/4, Office of this Paper.

LONDON, W.2.—Young Qualified Assistant required at once for High-class Dispensing Business; live in. Call or write, stating usual details, Maitland, Greenish & Lindley, 10 Chester Place, W.2.

SOUTH COAST.—Wanted, Qualified Man as Superintendent Private Company; permanency; old-established business; usual hours; small Panel, satisfactory references and interview essential; young Pharmacist requiring business experience, or elderly seeking congenial post, suitable; state age, experience and commencing salary, which must be moderate. "Ionone," 178/7, Office of this Paper.

STOCKPORT.—Qualified Assistant required immediately; must be of smart appearance and able to take charge in absence of principal; only person with good experience and character need apply; person whose home is near preferred. State salary expected. 180/46, Office of this Paper.

WEST STANLEY CO-OPERATIVE SOCIETY, LIMITED, invite applications for a Lady Assistant, Qualified, single, for the Chemistry Department. Applications to be made on special form, which will be sent on receipt of stamped and addressed envelope to the Secretary, Front Street, Stanley, Co. Durham. The last date for receiving applications will be July 13th, 1935.

WEYMOUTH.—Qualified or Unqualified Gentleman for season; good-class business; knowledge of Photo Sales and Toilets essential. Edmonds, Chemist, Weymouth.

YORKSHIRE, NORTH RIDING.—Wanted, Qualified Assistant (about 25), male, early July, for three months or probably longer; must be capable Dispenser and possess thorough knowledge of every branch of the business and able to take full charge at times. Please state full particulars, with references and salary required, to G. F. Hird, Chemist, Northallerton.

A.A.—QUALIFIED Man required for London, N.: one able to take charge single-handed; must be capable, all-round man and accurate Dispenser. Write particulars (if disengaged) age, salary and experience, P.C.B. 168/2, Office of this Paper.

ASSISTANT, Qualified, to commence July 8. Apply Walworth Pharmacy, Ltd., 283 Walworth Road, London, S.E.17.

IMMEDIATELY, for season, young Qualified or Unqualified male Assistant (19-22 years); good gentlemanly appearance for high-class Counter trade and Photographics. Write, stating experience; photograph with references essential, and remuneration (live out), Gordon, Morum, Chemist, Arcade, Guernsey.

JUNIOR Assistant, Unqualified (male) wanted; must be accurate Dispenser, with good knowledge of Photography, Toilet and General Counter practice. Apply, giving full particulars of experience, age, height and salary required, including photo if possible, to Rose, Chemist, Bullington Road, Oxford.

JUNIOR or Improver for High-class Country Business; interview if possible; references, salary and particulars of experience; good prospects; applicants not answered 7 days declined with thanks. Apply E. Neale, High Street, Chippenham, Wilts.

JUNIOR or Improver; one just finished apprenticeship suitable; medium-class Dispensing, Photographic and Retail Business; state salary required; wanted end of July or early August. Thurstfield & Co., Chemists and Opticians, Rockingham Road, Kettering.

LOCUM, Lady or Gentleman, Qualified; light duties; suit elderly person; August 24 to September 7, inclusive. Reply, stating age, salary required, with references, Chemist, 1 Church Street, Kidderminster.

LOCUM, Qualified, from July 15 to 27, inclusive; one residing in Eastern Counties preferred; give references and state full particulars, also salary (in or outdoors). Jackson, Chemist, 97 Fore Street, Ipswich.

LOCUM required, July 15-20, inclusive. Apply, stating wage required, to Littleworth Pharmacy, Ltd., Weston Road, Stafford.

QUALIFIED Assistant required for a new business to be opened in good, middle-class area; an easy, comfortable and permanent post for steady, reliable man; modern house attached. Particulars of experience, age and salary required (taking into consideration rent, rates and lighting free), to Parkinson, Chemist, Massey's Pharmacy, Fenton, Staffs.

QUALIFIED Assistant (under 25) for Dispensing. Apply by letter, giving experience and salary required, to Roberts & Co., 76 New Bond Street, London, W.1.

QUALIFIED Lady (about 25) required; must be interested in her work; live in, good home; comfortable herth for right applicant; Lancashire seaside town; state salary required, recent reference and photo if possible; applications not answered in 7 days respectfully declined. 179/3, Office of this Paper.

QUALIFIED Lady or Gentleman for London, S.W., district; permanent post for capable Assistant of taking full charge if necessary; good window-dresser essential and knowledge of Photography; please state experience, age and salary, etc. 180/39, Office of this Paper.

QUALIFIED Lady required for Counter and Dispensing; market town 25 miles from London; state experience, salary, etc. Richards & Bowring, Ltd., The Pharmacy, Wickford, Essex.

QUALIFIED Lady wanted immediately for Light Retail and Dispensing Business; state age, experience and salary required; for S.E. London. Reply to 179/20, Office of this Paper.

QUALIFIED Locum, August 24th to 31st, for high-class Dispensing business in North Staffordshire; applicants must be sober, trustworthy and over 30; highest references essential. Apply 179/21, Office of this Paper.

QUALIFIED Locum required from August 12 to September 3; state experience and terms. Hawkeswood, Chemist, Stourbridge, Worcs.

QUALIFIED Locum required, July 19th till 27th, inclusive; state salary required, references. Robertson, Chemist, Cheddar, Somerset.

QUALIFIED Locum required, lady or gentleman, for fortnight commencing either July 15 or July 27 or August 6. State age, experience and terms to Gihson, Chemist, Diss, Norfolk.

QUALIFIED Man (25-30) required for working-class district, East London; energetic and reliable; capable of taking sole charge; full particulars of age, experience and salary required. 179/14, Office of this Paper.

QUALIFIED Manager for country branch near Orpington; middle-aged not objected to; permanency. Please state age and salary required (vacant July 8th) to Preston-Jackson, 64 High Street, St. Mary Cray, Kent.

QUALIFIED, with experience in Photography, Light Retail and Dispensing; working-class district in West Country; salary £3 a week and commission on turnover; outdoors; state age, height, experience, when at liberty, photo (to be returned). 179/23, Office of this Paper.

RELIABLE Junior or Improver (male) for good-class business; permanency; interview or send photo with particulars of apprenticeship, and state salary required; all considered applications replied to within four days. S. J. H. Hudson, Chemist and Optician, Warlingham (Whyteleafe), Surrey.

REQUIRED, one Qualified and two Unqualified Assistants; must be neat and accurate Dispensers and good Salesmen; would have to take turn on late duties. Call 1 Marble Arch after 10 a.m. Saturday.

UNQUALIFIED Assistant, lady or gentleman (about 21), required at once; must have thorough knowledge of Retail and Dispensing; write or call Sunday between 10 and 8. "Chemist," 59 Hillside, Stonebridge Park, N.W.10.

UNQUALIFIED Assistant (20-30) wanted immediately for 3 months; small town Suffolk coast; Light Retail and Dispensing; one with D. & P. experience preferred, but not essential. 170/1, Office of this Paper.

UNQUALIFIED Junior, until middle September; must have experience in D. & P. State age, height, experience and salary required; give references. Enclose photo (to be returned). Apply 180/34, Office of this Paper.

WANTED at once, a Qualified Male Assistant (about 24) for a high-class Dispensing business as Second Assistant. 180/17, Office of this Paper.

WANTED AT ONCE.—Capable Qualified Lady Chemist for Silver End Branch. Apply, with full particulars and salary required and when disengaged. Applications to be in by July 1st to General Manager, Co-operative Society, Ltd., High Street, Witham, Essex.

WANTED for July and August, Qualified Locum, used to quick accurate Dispensing, chiefly N.H.I., and Counter. Apply Bunker (Chemists), Ltd., 151 Little Road, Fulham, S.W. 6.

WANTED.—Locum, Unqualified, from July 15th to August 17th; must have had good Dispensing experience; state age, height and salary required. W. E. Matthews, Ltd., 40 George Street, Croydon.

WANTED, Young Qualified Lady or Gentleman to take charge of branch shop immediately. Apply, with copies of references, age, experience and salary required (permanent), to Jenkins, 48 Wimborne Avenue, Hayes, Middlesex.

WANTED.—Young Qualified Male Assistant. Apply with full particulars in first letter re experience, age, salary required, etc., to The Secretary, Colne and District Co-operative Society, Ltd., Colne Hall, Colne, Lancs.

YOUNG Qualified branch Manager required; good window-dressing essential; permanency. Give full particulars, Davys, Chemists, Penge, S.E.20.

YOUNG Qualified Manager required for middle-class business; sound knowledge of Dispensing, Photography, Display and Modern Business essential; salary and commission; house available; state when free and usual particulars. Firth, 413 Kingston Road, Raynes Park, S.W.20.

WHOLESALE.

An Opportunity for Pharmaceutical Chemist

Large Continental firm (manufact. chem.) of highest standing and international repute offers

permanent, progressive position

in head office to keen and energetic gentleman with experience gained with firms of prestige in the branch of proprietary medicinal specialities. Must be thoroughly conversant with the international pharmaceutical trade.

Knowledge of German and (or) French necessary.

Apply, giving full particulars of previous experience, age, enclose photograph, to 262/486, Office of this Paper.

NORTHUMBERLAND AND DURHAM COUNTIES ONLY.—Experienced Traveller, with good sound connection, calling upon Co-operative Stores, Grocers and General Dealers; wanted to sell the usual Drysalts' Goods and Specialities. Apply, in full confidence, 171/7, Office of this Paper.

AREPRESENTATIVE (South Coast).—Manufacturers of nationally demanded and advertised range of Cosmetics require services of capable Salesman on part expense and commission basis. Apply Box TR, c/o Knights, 55 Chancery Lane, W.C.2.

PHOTOGRAPHS, TESTIMONIALS, &c.

When answering advertisements in this section applicants are strongly advised not to send (unless specially requested) ORIGINAL TESTIMONIALS or VALUABLE PHOTOGRAPHS. As can be readily understood, when an advertiser receives from 100 to 150 replies the task of returning photographs, testimonials, &c., is one of some difficulty.

ASSISTANT Wanted for the Manufacture of Toilet Products, Brilliantines, Hair Creams, Shampoos, Lotions and suchlike. Write, stating age, experience and salary required, The County Perfumery Company, North Circular Road, Park Royal, London, N.W.10.

CHEMIST required by London company for Spare-time Work, few hours monthly. Write Box 623, c/o Pool's, Fleet Street, E.C.4.

CHEMICAL Worker, used to the Manufacture of Citrates, required by leading London house. Write, stating wages required, experience and reference, to 262/497, Office of this Paper.

LEADING Company require experienced Salesmen in all areas; must have excellent connection amongst Retail Chemists and Druggists; commission basis only. Write fully, in confidence, 262/508, Office of this Paper.

PHARMACEUTICAL Chemist or Registered Chemist, male, as Works Assistant, Manufacturing Chemists, S.E.; moderate salary, but good opportunity. Write 262/503, Office of this Paper.

REPRESENTATIVE wanted by London Wholesale Druggist to call on Medical men in London district. Apply, giving connection, experience, etc., to 262/496, Office of this Paper.

TWO Representatives required by old-established firm of Manufacturing Chemists marketing Pills, Capsules, Tablets, Packed Goods, Anesthetics, Antiseptics, etc; territories vacant are (1) Northern England, Scotland and Ireland, (2) London and Southern Counties; remuneration on salary, commission and expenses basis; qualifications, sound connection with Chemists, Dentists, etc., and must possess own car. Write in first instant to 262/507, Office of this Paper.

COLONIAL, INDIAN AND FOREIGN.

EAST AFRICA.—Qualified Assistant, with all-round good experience, required by prominent Chemists; extensive knowledge of Photography and qualification in Optics essential; must be young, single and of good appearance and address; 4 years' agreement; first-class passage paid out and home; commencing salary £25 per month. Apply, with full particulars of previous experience, photograph and copies of references, to 179/6, Office of this Paper.

SITUATIONS WANTED.

RETAIL (HOME).

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

A.—CAPABLE Unqualified Man (35) desires permanency; smart appearance, pleasing Counter manner; 15 years' West End experience; highest references; disengaged. "F. W.," 22 Greenham Road, Muswell Hill, N.10.

A N Experienced Assistant, Dispenser; accustomed to good-class Retail business; well recommended; London area preferred; tall, single; permanency. 179/7, Office of this Paper.

ASSISTANT (25), experience of good-class businesses, Dispensing Counter, Photographic, desires locums for 2, 3 or 4 weeks from July 8; awaiting result of Part 2. Bowles, 7 Worston Road, Highbridge, Somerset.

ASSISTANT (29; 6 ft.), Unqualified; ex-public school; experienced all branches of trade, including managing ability; clean, accurate Dispenser, tactful, courteous Counterman; town or country; available immediately. Flatman, 4 Westbourne Park Villas, Bayswater, W.2. (Bay. 4753.)

ASSISTANT (23), Unqualified, requires post; in or near London preferred; 4 years' Dispensing, Counter and Warehouse experience. Marshall, Post Office, Ashington, Rochford, Essex.

LADY Dispenser, Apothecaries' Hall, experienced, seeks post; London or near; moderate. "M.," 2 Park Avenue, St. Albans, Herts.

LADY Dispenser, Hall, desires post with Doctor or Hospital, preferably in the South-West of England; experience in Hospital work and general practice; free at the end of August. 262/500, Office of this Paper.

LADY Dispenser (Hall) seeks post; 11 years' experience; preferably Hospital or Doctor; references. Wellings, 156 London Road, Bishop's Stortford.

LADY, Unqualified, seeks post, Dispensing, Counter and Stock; excellent references; free now. "M.," 7 Dunbar Road, Forest Gate, E.7.

LOCUM, Hospital Pharmacist, Qualified; middle-age; London experience; well recommended; South preferred; disengaged before July 15, after August 24. P.C.B. 167/35, Office of this Paper.

LOCUM, in London; Qualified; elderly, active and reliable; ab-stainer; strictly moderate salary. Apply "S.," c/o Whitton, 2 Penistone Road, Streatham Common, S.W.16.

LOCUM, M.P.S., disengaged July 1st; London, anywhere Southern Counties. Duckett, Sparack, Bridport.

LOCUM, Ph.C.; disengaged from July 13 to 27, August 11 to 24; long, good experience; reliable; recommended. "A.," 46 Lordship Lane, S.E.22.

LOCUM, Qualified (38); all-round experience; disengaged; reference Woolley's, Manchester. Julius Levi, 18 King's Road, Sedgley Park, Manchester.

LOCUM, Qualified (26), or Assistant; free August 5 and onwards; references. Leigh, 76 Finsbury Park Road, N.4.

LOCUM (Registered N.P.U.); vacant dates from July 29 to August 17, all September. Elliott, 477 North Circular Road, Cricklewood, London, N.W.2.

LOCUM (40); free first two weeks August; fully experienced Herbal, Drug and Surgical Stores; moderate salary; seaside or country. 178/1, Office of this Paper.

M.P.S., MANAGER; London only; energetic and capable; Counter, Dispensing and Windows; good references. 180/38, Office of this Paper.

M.P.S., MIDDLE-AGED, active; many years' experience manager and proprietor; is open for engagement shortly, with or without view purchase; West Sussex or adjacent counties preferred. 180/31, Office of this Paper.

M.P.S. (25) seeks situation, W. or S.W. London; knowledge of Accounts; salary £4 5s.; free in six weeks. 178/9, Office of this Paper.

QUALIFIED Chemist and Optician (32), thoroughly experienced, desires post with scope for commencing or building up Optics; own stock and equipment if required; Hants, Dorset, Somerset, Devon or Cornwall. 180/28, Office of this Paper.

QUALIFIED, locum or permanent; elderly; active; disengaged; terms moderate. T., 31 Trinder Road, N.4.

QUALIFIED Manager (34) desires permanency; experienced in all branches Surgical Appliances; Lancashire preferred; excellent references; disengaged by arrangement. 180/37, Office of this Paper.

QUALIFIED Manager (28), single, desires change; General and Agricultural, Retail and Hospital experience; with excellent references; West of England preferred, but not essential; salary £4 per week; can be free by August 11th. 179/17, Office of this Paper.

QUALIFIED (28), at present managing, desires change; varied experience in London and Provinces; South or South-West England preferred. 180/44, Office of this Paper.

QUALIFIED (31) desires position, N.W. London, with living accommodation; good experience; 3 years West End. 177/1, Office of this Paper.

NAMES AND ADDRESSES.

When sending advertisements for any of the sections in this Supplement, advertisers—as a guarantee of good faith and not necessarily for publication—should always give their names and addresses. It sometimes occurs that this rule is not followed and delay and disappointment ensue. Strict attention to this detail will be appreciated.

WANTED

Method to preserve Pancreas with full insulin contents and Insulin Manufacturing Process with guarantee of maximum output.

262/506, Office of this Paper.

UNQUALIFIED Lady Assistant desires locum work, July 1st-13th. Miss G. M. Warwick, 36 Stockwell Park Road, S.W.9.

UNQUALIFIED (40), 25 years Pharmacy, 13 years present post, highest references, married, 5 ft. 10 in., seeks permanency. Smye, 33 Brook Street, Ilkley.

WHOLESALE.

A LIVE Representative, 16 years' experience, whole of London. Chemists, Hairdressers and Stores, open to consider really well-known reputable house; actual records of ability and salesmanship; exceptional credentials; own car. 179/15, Office of this Paper.

ASSISTANT; experienced in Manufacture Toilet and Medicinal Preparations; also Wet and Dry Counterwork. "E. R. L.," 67 Waverley Avenue, Twickenham.

ENERGETIC, Capable Representative requires post with first-class Proprietary House with good nationally advertised lines; salary and expenses required; sound connection in Eastern Counties and Midlands; exceptional references. 179/1, Office of this Paper.

FOREWOMAN urgently seeks work in any capacity; used to controlling female labour. M. B., 47 Lowden Road, S.E.24.

LIVE Representative (28), 12 years' experience, sound connection London area, desires Sales position with reliable company; own car. 180/27, Office of this Paper.

MEDICAL Specialities.—Qualified Gentleman, young, with representative experience, desires position with firm offering permanency and progress; administrative ability; adaptable; good appearance and personality; drive car; resident London. 180/13, Office of this Paper.

P.H.C., B.S.C. (LONDON), Bell Scholar, Silver Medallist, with Teaching, Analytical and Hospital experience, desires post. 179/18, Office of this Paper.

REPRESENTATIVE, expert Medical Propagandist, thorough knowledge and long experience in Marketing Specialities, requires position with good-class house for Southern Counties and West. P.C.B. 167/36, Office of this Paper.

REPRESENTATIVE, late well-known Dressings House, seeks engagement; own car; excellent connection West of England. "W.," Western House, Axminster.

25 YEARS RETAIL.—Unqualified (40, married); 13 years present post; highest references; willing to adapt myself to allied trades. Smye, 33 Brook Street, Ilkley.

COLONIAL, INDIAN AND FOREIGN

IN EGYPT.—Professional Medical Propagandist seeks Important Firm Medical Specialities to engage him for distribution of its products; best connection with Doctors in Egypt, Cyprus and Sudan; large experience; actually employed important firm. Write "Propagandist," Box 418, Cairo.

M.P.S., F.B.O.A.—MANAGER, last 4 years large pharmacy Tropical Africa desires situation abroad; thoroughly conversant all branches, including Clearing and Forwarding, Indenting, Costing, Photography, Technique of D. & P.; expert refractionist; fluent French. Write "A. T.," c/o Streets, 6 Gracechurch Street, London, E.C.3.

CLEAR OUT—your Old or Damaged

Stock of Photo Goods. Why keep them any longer? Turn them into CASH. I GIVE BEST PRICES for Old Films (damaged, fogged or expired dates); Packet Papers. Cards (any sizes). Old Photo Goods or Cameras. Bromide Papers. Plates (all sizes, all makes). Send any goods in the photo line. I buy all, good or bad. Cash per return. A good price for all Cameras. Send them along.

S. E. HACKETT, 23 July Road, Liverpool

FOR SALE.

(Articles to the value of £5-£50.)

CASH REGISTER.—National; condition as new; prints all sales and adds total. Write R. Bowes, 44 Burns Road, N.W.10.

MISCELLANEOUS.

10s. for 60 words or less; 1s. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

CHEMISTS' FITTINGS.—We hold an immense stock of Drug Fittings, Dispensing Screens, Glass-fronted Counters, Perfumery Cases, Nests of Drawers, Wall Cases, Silent Salesmen, Upright and Flat Counter Cases, Plate Glass Counters, Cash Tills, Display Stands and Glass Shelves, etc., at competitive prices. F. MAUND & E. BERG (SHOWCASES), LTD., Shop Fitters and Shop Front Builders, 175/9 Old Street, London, E.C.1.

CHEMISTS' Shop Fittings in Oak or Mahogany; keenest prices; 8-ft., 10-ft., 12-ft. Drug Fittings; 6-ft., 8-ft. Wall Cases; 8-ft., 6-ft. Dispensing Screens; 6-ft., 8-ft., 10-ft. Serving Counters; 4-ft. Nests Counter Drawers; All-Glass Counters; Silent Salesmen; Bottles; Window Enclosures and Glass Shelves; send for rough sketches. GEORGE COOK, The Working Shopfitter, 27 Macclesfield Street, City Road, E.C.1. Phone: Clerk. 5371.

FOR SALE.—World Labelling Machine by Purdy Patent Machinery, Co., Ltd., with centre gumming and fitted to affix single or two labels to range of round and flat containers, bottles, cartons, etc.; complete with motor drive; hardly used; few months old. Apply Ferguson Edwards & Co., 14/15 Hoxton Square, London, N.1.

LIMITED COMPANY REGISTRATION.—An ever-increasing number of Chemists are protecting their assets against illness or accident by this form of safety trading. The cost has recently been reduced to from £10, inclusive of stamp duties and my fee, etc.; 25 years' experience; write me for free advice. A. BERNARD SLACK, 721 Princess Road, West Didsbury, Manchester.

LONDON.—Chemists' Shop Fittings for Sale; modern, mahogany; installed 18 months ago; cost over £400; Wall Cases, Drug Fittings, Glass-fronted Counter, Dispensing Screen and Counter Scales, Shop Rounds, Shop Equipment; all in splendid condition. P.C.B. 168/401, Office of this Paper.

WANTED.—Sifter and Mixer, 100 to 300 lbs. capacity; power-driven machine required. Write, giving full particulars as to where may be seen, together with lowest price, to 262/481, Office of this Paper.

£650 STOCK IN GOOD CONDITION.—Patents, Sundries, Packed Lines and Drugs. What offers? Giving up for health reasons; all to be disposed of; also Fittings; reasonable offer for lot will be accepted; may be viewed any time to suit convenience. Central Pharmacy, 45 Union Street, Plymouth.

10 FT. Drug Fitting; 6 ft. Wall Case; 12 ft. Glass-fronted Counter; nests of Counter Drawers; 6 ft. Dispensing Screen and Counter; Counter Case; Personal Weighing Machine; Chair; all reconditioned and polished. PHILIP JOSEPH & SONS, LTD., 90/92 St. John Street, Clerkenwell, E.C.1. Telephone: Clerkenwell 2191. "Pharmacy fitters for over a century."

EXCHANGE COLUMN.

2d. per word, minimum 2s. (Box No., 1s. extra.)

WANTED.

SECOND-HAND Rotary or Single Punch Tablet Machines wanted. Particulars to 261/455, Office of this Paper.

Do you subscribe TO

THE CHEMIST AND DRUGGIST?

ONE POUND STERLING brings you THE CHEMIST AND DRUGGIST post free for one year, including all Special Issues

- (1) A weekly copy (in which is inserted THE CHEMIST AND DRUGGIST SUPPLEMENT).
- (2) A comprehensive and trustworthy Retail and Dispensing Price List issued quarterly.
- (3) Free indemnity for certain specified business risks to Retail Chemists not otherwise covered.
- (4) Free use of Information and Enquiry Department for business purposes.
- (5) Expert advice on the varied difficulties which arise in the course of a Chemist's business.
- (6) **THE CHEMIST & DRUGGIST DIARY, the standard business reference for the trade.**

BUSINESS BOOKS FOR CHEMISTS

Pharmaceutical Formulas. (P.F. Vol. I.) (10th Edition). The most complete pharmaceutical formulary in the English language. 1,146 pages. Price 15s. net, by post 15s. 9d.

Pharmaceutical Formulas. (P.F. Vol. II.) Just published. Known as "The Chemist's Recipe Book" and is supplementary to Vol. I. Contains over 1,000 pages, comprising recipes for adhesives, beverages, cleaning materials, culinary and household remedies, perfumes, toilet articles, etc. Price 15s. net, by post 15s. 9d.

Veterinary Counter Practice (7th Edition). By an experienced M.R.C.V.S. Contains 440 pages. Price 7s. 6d. net, by post 8s.

The Art of Dispensing (10th Edition). A treatise on the methods and processes involved in compounding medical prescriptions, &c. 574 pages. Price 8s. net, by post 8s. 6d.

Provincial Hospital Pharmacopœias. Contains formulas for medical prescriptions used in twenty-two hospitals and infirmaries in Great Britain outside the London District. Price 3s. net, by post 3s. 2d.

Practical Methods of Urine Analysis. Written by a pharmacist expert in this work and revised by a medical practitioner and lecturer of long experience in clinical analysis. Price 4s. net, by post 4s. 3d.

Diseases and Remedies. Especially written for the use of chemists. Contains 264 pages. (5th Edition.) Price 5s. net, by post 5s. 3d.

The Chemists' Dictionary of Medical Terms. Contains 308 pages. Price 3s. 6d., by post 3s. 8d.

Wootton's Chronicles of Pharmacy. In two vols., maroon cloth, comprising 770 pages. Price 10s. 6d. net, by post 11s. 3d.

28 ESSEX STREET, STRAND, LONDON, W.C.2

Branch Offices:

MANCHESTER

49 County Buildings
:: 4 Cannon Street ::

GLASGOW

19 Waterloo Street

PARIS: 155 Avenue de Wagram

SHEFFIELD

54 Foster's Buildings
:: High Street ::

SYDNEY AND MELBOURNE, AUSTRALIA

AND AUCKLAND, NEW ZEALAND



ORGANO GLAND THERAPY SUBSTANCES

EXPORT ENQUIRIES INVITED

INTERESTED BUYERS ARE INVITED TO DISCUSS THEIR EXPORT PROBLEMS

- ADRENALIN (Natural) • CORPUS LUTEUM • OVARIAN HORMONE •
- THYROID B.P. • PEPTONE • ORCHITIC • PITUITARY W.G. •
- ANTERIOR & POST. LOBE EXT. • PARATHYROID 1-10 •
- OVARIAN SUBSTANCE & RESIDUE •
- PANCREATIN, B.P. & U.S.P. •
- EXT. HEPATIS •
- SICC. & LIQ.
- B.P.



GEDEON RICHTER GB LTD
1 & 2 HARDWICK STREET, LONDON. E.C.1.
Telephone: Clerkenwell 9521.

THE CHEMIST & DRUGGIST COMPACT LIBRARY

PHARMACEUTICAL FORMULAS (P.F., Vol. I).

The tenth edition of this, the most complete pharmaceutical formulary in the English language, is devoted to the official and semi-official preparations of practically every country in the world. This volume (published 1929) contains 1146 pages.

Price 15s., by post 15s. 9d.

PHARMACEUTICAL FORMULAS (P.F., Vol. II).

Published 1934. Supplementary to Vol. I., and known as "The Chemist's Recipe Book." Contains formulas for adhesives, beverages, cleaning materials, culinary and household requisites, horticultural and agricultural preparations, inks, lozenges, perfumes, photographic preparations, polishes, soaps, toilet articles, varnishes, veterinary preparations, etc., including numerous descriptions of practical methods employed in their manufacture, and other information of use to pharmacists and manufacturers. Over 1000 pages.

Price 15s., by post 15s. 9d.

PHARMACEUTICAL BOTANY.

An attractively written book, dealing with the plants mentioned in the examination syllabus of the various pharmaceutical examining bodies. A useful gift for apprentices and assistants who have not passed the qualifying examinations.

Price 5s., by post 5s. 4d.

THE ART OF DISPENSING.

The tenth edition of this well-known work has been thoroughly revised and considerably improved, while maintaining the features which have made it so popular with several generations of students. It is kept by chemists in the dispensary for ready reference in cases of difficulties arising in the course of the day's work.

Price 8s., by post 8s. 6d.

VETERINARY COUNTER PRACTICE.

Chemists interested in veterinary practice will find the work indispensable, as it deals with the ailments of horses, cattle, sheep, pigs, dogs, and poultry, and the

remedies that can be supplied. New edition 1930 (Eighth) brings this book thoroughly up to date.

Price 7s. 6d., by post 8s.

THE PHOTOGRAPHIC CHEMIST.

This is a concise guide to chemists commencing and carrying on a photographic department.

Price 3s. 6d., by post 3s. 8d.

DISEASES AND REMEDIES.

Now in its sixth edition (March, 1931). It has been carefully revised by an experienced medical practitioner and parts of the book have been rewritten.

Price 5s., by post 5s. 3d.

WOOTTON'S CHRONICLES OF PHARMACY.

In two vols., maroon cloth, comprising 770 pages.

Price 10s. 6d., by post 11s. 3d.

PRACTICAL METHODS OF URINE ANALYSIS.

The object of this book is to give chemists exactly the information they want on the subject. The book was written by a pharmacist who was an expert in this work, and has been revised by a medical practitioner and lecturer of long experience in clinical analysis. (Fourth Edition.) Contains 97 pages.

Price 4s., by post 4s. 3d.

THE CHEMISTS' DICTIONARY OF MEDICAL TERMS.

A small book which explains the meaning of medical terms as to which customers often inquire from chemists. In addition to concise definitions of these technical terms, notes are given on the treatment of the more important ailments.

Price 3s. 6d., by post 3s. 8d.

The "C. & D." PRICE LIST FORMULARY, "P.L.F."

All users of the C. & D. Retail Dispensing Price List require a copy of this Formulary. It brings together the formulas for unofficial preparations, the prices of which are quoted in the Price List. It is a choice collection of good formulas for articles in everyday request by the public. Price 2s. 6d. post free.

Published by **THE CHEMIST AND DRUGGIST**, 28 Essex Street, LONDON, W.C.2
Branch Offices: Manchester and Sheffield, England. Glasgow, Scotland. Paris, France. Melbourne and Sydney, Australia. Auckland, New Zealand.



Here's an amazing
NEW
SHAMPOO
retailing at
only **2d**

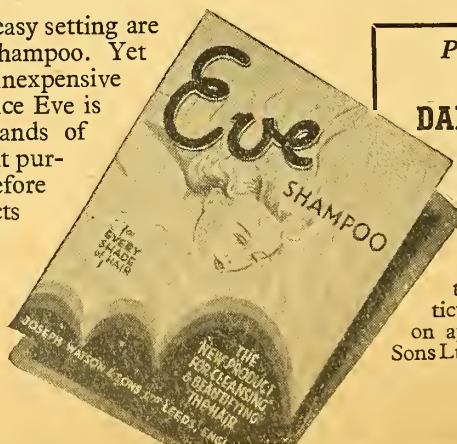
EVE is an entirely different
Non-Alkaline **SHAMPOO** with
an assured popular appeal that will
bring you absolutely *new* business

Eve Shampoo is different — an entirely new discovery in the science of cosmetics — hair cleanser, tonic and beautifier combined. Eve gives to hair of any type or colour a degree of cleanliness never before known. It contains no harmful alkali and no soap—nothing to make the hair brittle or to dull its lustre.

Wonderful sheen and easy setting are assured by the use of Eve Shampoo. Yet Eve Shampoo is amazingly inexpensive — only 2d. At this low price Eve is within reach of the thousands of women who do not at present purchase a shampoo. Eve therefore breaks fresh ground—attracts *new* business.

Over 105,000,000 advertisements of the new Eve Shampoo will appear this year in a wide range

of national papers, among them Daily Mail, Daily Mirror, Daily Sketch, The People, John Bull, Everybody's Weekly, The Leader, Picture Show, People's Friend, Peg's Paper, etc., telling all classes about Eve—creating a big demand.



*Powerful Launching
Advertisement*

DAILY MAIL — July 19

*Whole Front Page
in colour*

Order a stock of Eve Shampoo to-day. Trade terms and particulars of Introductory Bonus sent on application to Joseph Watson & Sons Ltd., Whitehall Soap Works, Leeds.



EVS 7-484-100

JOSEPH WATSON & SONS LTD., LEEDS